THE HEALTH MAGAZINE

HYGEIA

Medical Library
MAR 28 1940

Debunking Cosmetics See page 300

APRIL • 1940 • 25c

THE MAIN STREET FORUM AGREES—

"Babies take to Clapp's!"

1. The Young Thing with her first baby starts it off by remarking, "I'm starting Barbara on strained foods next week. I suppose it won't matter to her which brand I buy, will it?"

The chorus of protest rises loud and emphatic. "Oh, doesn't it?"..."...why, there's all the difference—" "...if my baby could talk, he'd tell you—" "My Wallie *can* talk—he's on Chopped Foods now and he—"

2. The energetic ex-business girl says, "Babies are very choosy about flavor. And Clapp's Foods are always so fresh-tasting. They seem like vegetables right fresh out of a garden. You just ought to open up some other brands of strained or chopped spinach some time and taste them yourself. Clapp's would win in a walk!"

3. The former schoolteacher who has read up on infant diet gets in a word: "Clapp's vegetables are specially raised for baby foods. Clapp's made baby foods long before the others, and they don't make anything else. They've worked years with plant-breeders to develop vegetables full of vitamins and minerals and flavor."

4. The comfortable mother of four says, "Listen! It's texture, too. Some foods are too thick for a baby's tongue, and some are so thin he doesn't learn to eat. Clapp's are exactly right. And you'll be glad you chose Clapp's when your baby's older! Clapp's Chopped Foods have the same flavors, and she'll go on to them so easily!"

17 Strained Foods for Babies

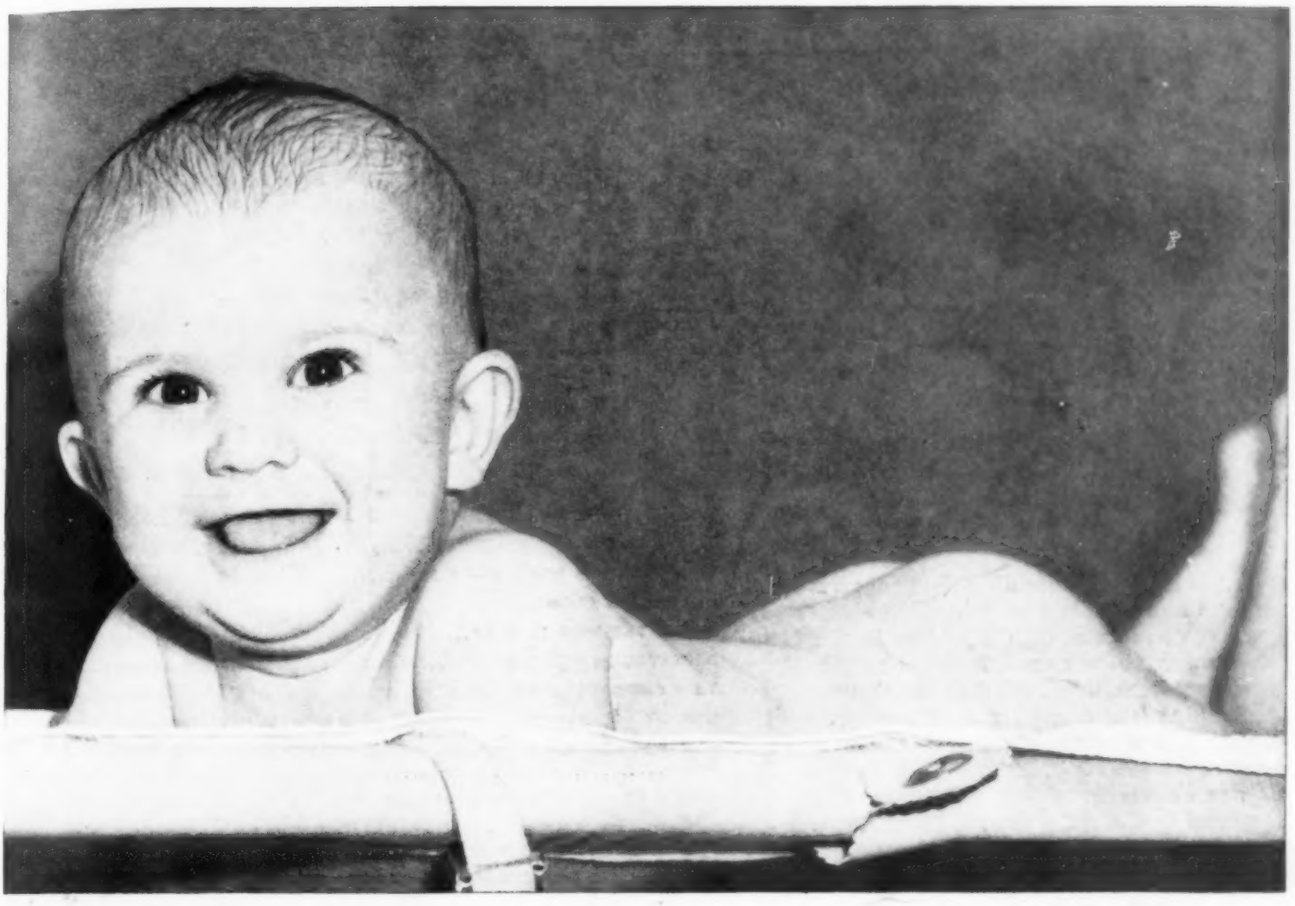
Soups—Vegetable Soup • Beef Broth • Liver Soup • Unstrained Baby Soup • Vegetables with Beef • **Vegetables**—Asparagus • Spinach • Peas • Beets • Carrots • Green Beans • Mixed Greens • **Fruits**—Apricots • Prunes • Applesauce • Pears-and-Peaches • **Cereal**—Baby Cereal.

12 Chopped Foods for Toddlers

Soup—Vegetable Soup • **Junior Dinners**—Vegetables with Beef • Vegetables with Lamb • Vegetables with Liver • **Vegetables**—Carrots • Spinach • Beets • Green Beans • Mixed Greens • **Fruits**—Applesauce • Prunes **Dessert**—Pineapple Rice Dessert with Raisins.

Clapp's Baby Foods

OKAYED BY DOCTORS AND BABIES



BABIES SUPERVISED BY PHYSICIANS

ARE BETTER BABIES

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ARIES

FORECAST FOR MAY

While national attention is just now being focussed on the migrating dust-bowler, the state of California health officers have been concentrating on them now for some time. Esther A. Canter, of Banning, Calif., writes a stirring article on the almost superhuman task of keeping down contagious disease in the California areas settled by these tent families. Without private sanitation, without knowledge of even the fundamentals of how to keep well, these prolific people could be the source of untold, widespread sickness and epidemics, if the health authorities were not vigilant and insistent on doing all within their power to keep down disease. A thrilling article, timely and national in scope—watch for it!

"Noise results in neurosis, loss of sleep, excessive fatigue and in emotional disturbances, in addition to impaired hearing," according to the manuscript of Rose Zeligs, which is being prepared for the next issue. Although we may get used to a certain amount of noise, so that it is no longer disturbing, it is nevertheless leaving its mark on our health and efficiency. There are several things we can do to avert these effects and reduce the amount of noise, and these are described in detail next month in this article entitled, "Noise and Nerves."

Two million boys and girls will leave for summer camps before many weeks have passed. But for the parents who are still dubious about whether to send their children to camp, Ross L. Allen, managing executive of the American Camping Association, Inc., has contributed an article which should make it easy for them to decide. He presents, fairly and squarely, arguments on both sides of this question, which still leaves the decision to the parents—but they are at least in full possession of the facts involved.

HYGEIA

THE HEALTH MAGAZINE

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Unsolicited manuscripts will be considered by the Editor but must be accompanied by a stamped self addressed envelop to insure return if rejected. Manuscripts should be typewritten, double-spaced, and the original, not the carbon copy submitted. All rights reserved.

Sound, even baby teeth

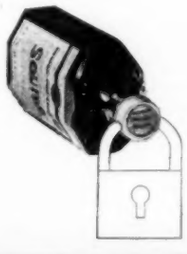
help pave the way for good permanent teeth. Vitamin D helps baby use calcium and phosphorus in food to build teeth properly. Squibb Cod Liver Oil is a fine source of Vitamin D

building teeth properly

Most mothers watch anxiously to see when baby cuts his teeth. But sound tooth structure is far more important than when teeth come through. So give Squibb's daily for extra Vitamin D.

Give this special help the year 'round!

Rain, fog, smoke, dust, clouds, clothing, and window glass may deprive your baby of from 50% to 75% of the sun's Vitamin D producing rays. So be sure to give him Squibb Cod Liver Oil—for plenty of Vitamin D—the year 'round.



Vitamins guarded! You get your money's worth!...When you insist on buying Squibb Cod Liver Oil for your baby, you get full value of the Vitamins A and D that you are paying for. Squibb Cod Liver Oil provides your baby with more than twice as many units of Vitamin A and three times as many units of Vitamin D as a cod liver oil which just complies with minimum requirements of the U. S. Pharmacopeia. You'll find it's an economy to buy Squibb's! Ask for it now—by name—at any drug store!... *The priceless ingredient of every product is the honor and integrity of its maker*

SQUIBB Cod-Liver Oil

Who's Who IN HYGEIA

HOWARD FOX, M.D., is Editor-in-Chief of the *Archives of Dermatology and Syphilology,* a medical publication of the American Medical Association. He has held the post of Chairman of the Sections on Dermatology and Syphilology of the American Medical Association, the New York State Medical Society and the New York Academy of Medicine. He writes "Debunking Cosmetics" on page 300.

DOUGLAS E. LAWSON declares his interest in suicide is purely academic, growing out of his studies in sociology and psychology. He is assistant professor of education at Southern Illinois State Normal University and teaches education and psychology. He received his Ph.D. degree at the University of Chicago in 1939. "Why Man Commits Suicide" on page 296 is written by Dr. Lawson.

DON C. LYONS, D.D.S., Ph.D., is a fellow of the American Public Health Association and held a fellowship in the Mayo Foundation of the University of Minnesota and the Mayo Clinic. He is a member of the American Dental Association, American Association for Advancement of Science and the Society of American Bacteriologists, among others. He spends his spare time in research in the field of biochemistry and in public health educative work.

C. C. LITTLE, LL.D., Sc.D., Litt.D., has served both the University of Maine and the University of Michigan as president. He is now head of the Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Maine, and managing director of the American Society for the Control of Cancer. He is a fellow of several organizations, among them the American Academy of Arts and Sciences, New York Academy of Medicine, American Association for the Advancement of Science, American Association of Cancer Research (president, 1930) and the American Social Hygiene Association. He has written several articles on genetics, cancer research, education and social problems and is the author of "Deadly Disease Number 3: Cancer" on page 316.

NOAH D. FABRICANT, M.D., has contributed several articles and stories to outstanding American magazines, and one of them received distinguished mention in Edward J. O'Brien's best short stories of 1934. **LEO M. ZIMMERMAN, M.D.,** is on the staff of Northwestern University School of Medicine and enjoys reading medical history; so when Dr. Fabricant and Dr. Zimmerman got together, they produced "Conquerors of Pain" on page 326.

ROSE ZELIGS' main occupation is teaching sixth-grade children in the Avondale Public School in Cincinnati. Because of her contact with 160 11 and 12 year old children every year, most of her studies deal with that age period. Her doctorate thesis at the University of Cincinnati is entitled "The Relationship of Emotional and Personality Traits to Learning in Children." She also studied at the University of Chicago on the psychology of emotions. As for Miss Zeligs herself, she tells of the visit of the tall mother of a tall girl who was in her class. She looked at Miss Zeligs standing to her full height of 5 feet and said, "Oh, Miss Zeligs, Ruth talks so much about you and you are so small." Her article entitled "Does Your Child Worry?" appears on page 308.

LETTERS FROM Readers

Misstatement

To the Editor:

In the March issue of HYGEIA, there appears an article by Mr. John Kobler entitled "The Doctor Looks Into Your Stomach," in which it is stated at the top of page 271 that "Schindler was offered a professorship at the University of Chicago and introduced gastroscopy in this country."

This is a misstatement, for I was the first to use the Wolf-Schindler flexible gastroscope in the United States as you can see by referring to the bottom of page 2 of Schindler's textbook on gastroscopy. I first used the flexible gastroscope here at the Massachusetts General Hospital in 1933, at which time Schindler was still practicing in Germany. I am sorry to have this mistake occur, as it has already been copied in the *Reader's Digest* and is quite likely to be misquoted again.

EDWARD B. BENEDICT, M.D.
Boston, Mass.

Being a Mother

To the Editor:

HYGEIA is a great magazine, I know. In fact, one copy I read gave me such excellent advice about what might happen to me with the illness I had, if I didn't act at once, that I resolved to get busy immediately.

I've two boys in the adolescent stage and need any good advice you've got. Being a mother is one hard job if the result must be the best.

RUTH W. GATES
De Tour, Michigan

Admiration for "Prayer"

To the Editor:

I should like to express my appreciation and admiration for the "Prayer" by the Rev. George Stewart for Dr. Harvey Cushing, which appears in the current issue of your magazine HYGEIA. Also, of the very fitting photograph of the doctor, which is especially interesting to me, for I am a graduate of the hospital (Peter Bent Brigham) where for so many years he worked.

Perhaps you could inform me how I might obtain a duplicate of the same; if so, it would be deeply appreciated.

LEE CLEVERLEY, R.N.
Brookline, Mass.

>> *A proof of this Prayer on heavy paper, suitable for framing, has been sent to Miss Cleverley.*

JUST A "BUNDLE OF NERVES"

MANY A HOME is turned topsy-turvy by a woman who is—in the words of her family and friends—"just a bundle of nerves."

Her symptoms include exhaustion . . . irritability . . . apprehension . . . frequent attacks of the blues and sudden tears, She is always on the verge of "flying off the handle" over trifles.

It is easy to assume that she is simply cranky. That worry and fussing have brought her to the condition so often—and so loosely—described as "mostly mental." Yet such assumptions are hardly fair.

For not infrequently the woman, whose household is afraid to draw a free breath, may have something important wrong with her *physically*. It may be anemia, or an over-active thyroid. And glandular readjustments of the menopause may temporarily change a woman's inherent nature.

These are only a few of the physical conditions that can turn a normal, well-regulated woman into a jumpy, unhappy "bundle of nerves." And the whole thing is so often unnecessary. For a visit to the doctor can often reveal the *source* of the trouble—and indicate the cure.

Your doctor is the *one person* qualified to decide this. His knowledge enables him to identify the symptoms, and weigh the importance of physical and mental factors. And for either or both kinds of trouble, he can plan the corrective steps leading to normal health.

So if you find yourself—or any member of your family—becoming overwrought with trifles or unduly nervous, the *one thing* to do is see your *doctor*. Don't put it off! Neither you nor your friends—nor *their* friends—are qualified to advise on a condition so difficult to deal with.

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PARKE, DAVIS & COMPANY
Detroit, Michigan
The World's Largest Makers of Pharmaceutical and Biological Products

SEE YOUR DOCTOR

R. I. Nesmith & Assoc.

How it pours, pours, pours,
In a never-ending sheet!
How it drives beneath the doors!
How it soaks the passer's feet!

How it rattles on the shutter!
How it rumples up the lawn!
How 'twill sigh, and moan, and mutter,
From darkness until dawn.

—Rossiter Johnson

From Stevenson's Home Book of Quotations

The Doctor Is the Baby's Friend

AMONG the advisers of mothers on the care and rearing of children few have achieved as wide an audience or as much dependence as has Angelo Patri, whose columns are syndicated daily by Bell Syndicate, Inc., of New York. Recently one of his columns, entitled, "Children Need Doctor's Care," was published in the Chicago *Daily News*, and it is here quoted with the permission of both the Chicago *Daily News* and the Bell Syndicate. The message of Angelo Patri should be read with deep interest and should be carefully heeded by every mother who wants to do for her child the most that can be done.

Today the number of varied pulls on the patient's dollar is tremendous. Children need food, fuel, clothing and shelter. Their parents want them to have education not only in the fundamentals like reading, writing and arithmetic but also in music and art. They want their child to participate in the recreational activities that are used by other children. They want the child to have movies, radio and transportation. But all these would be of little significance to a child constantly in ill health. That is the message which Angelo Patri brings in the following column.

Children Need Doctor's Care

Regular Supervision as Vital as Food

By ANGELO PATRI

Trying to bring up a child of today without the help of a good doctor is likely to end in unrewarded effort. Most mothers need the help of the doctor who knows the child intimately, that is the doctor who has known him since birth, and before. Very few people cannot find the money to pay for the supervision such a doctor gives a growing family. No money is so well spent as the few dollars paid him for the friendly, fatherly, professional care he gives the children.

Just why people think that money paid the doctor is money regrettably spent is beyond my understanding. "I'd rather give the money to the butcher than to the doctor," says a mother who thinks it wise to give her 9-year-old boy steak twice a day. "He won't eat vegetables for me and he likes his meat."

The boy was not well. His color was bad, he did not want to play, he was irritable and his school work was falling steadily. When we suggested the doctor she said what with meat so high and all she just couldn't afford the doctor. My notion was that if she had held on to her doctor she would not be buying so much meat, her little boy would be eating his vegetables and drinking his milk, getting his ration of meat and getting along nicely like his classmates. By and by the doctor had to be called. He regulated the child's routine, gave him a diet list, watched him for a while and sent him on his way fit and hearty. His bill was $25 and it came out of the household budget without hurting anybody. The new diet reduced the meat bill, the new routine cut down the movies, and the candy, hot dog, pop expenses. And the boy was happy and well.

I've seen the same thing too many times not to know that the supervision and advice that a good doctor gives to the family of his patron are worth far more than any money measures. Provision for his yearly fee ought to be made with the same finality as provision for food and clothes, and paid quite as cheerfully. Any family that can dress well, run a car, attend movies and shows, can afford medical attention for the family. That item should head the list of essential, fixed charges. Insurance, of several kinds, is essential, but the doctor's care should precede them all.

When you find a good doctor for the family stick to him. Do what he says faithfully. Train the children to trust him as their good friend always. Never use him as a threat or his service as a punishment. His service is farther from that idea than anything you can imagine. His work insures health which is the basis of growth, and success, in any field of life.

And pay him promptly. Doctors are servants to the needs of humanity. They answer the cry of distress at any hour of the day or night. They ease pain, they heal the sick, comfort the suffering and make the way of death peaceful. Their service is beyond price, spiritually, but doesn't that make us doubly indebted to them? Who would shrink his own soul by withholding a debt for generous skilled service to his loved ones—or to himself? Your doctor is your ministering friend. Acknowledge him.

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Why Man

One lives the last moment in an intense awareness of its meaning, not in a dull subordination of the personality. One is acutely conscious of himself as an individual, keenly regretting a decision for whose acceptance he can find no alternative.

Commits Suicide

In a remarkable article,* DOUGLAS E. LAWSON *reveals the mental processes that accompany the set of mind that is determined to end its existence on earth

RECENTLY I heard a well known lecturer discuss suicide, stressing two opinions; first, that those who resort to self destruction are invariably of unsound mind and, second, that they are cowards.

But can any one who has never, by choice, brushed closely against the garments of Death be in a fair position to analyze the motives and reactions of those who have? Those who condemn suicide are frequently unable or unwilling to gather any objective proof to justify the indictments which they offer.

Each year in the United States alone the number of persons who kill themselves is sufficient to fill a fairly large town. Or—shall we say—to empty it. The total is close to 20,000 persons. In our awe at the arithmetic total we might fail to be conscious of the misery and despair, the bitter unhappiness and pain that motivated each of the many hands to its act of self annihilation.

In medieval days men blamed the devil for suicides. Nowadays this monistic fallacy persists, though by a different manifestation. We simply say that the victim was crazy. And, instead of commiseration, we may feel contempt. What a would-be suicide needs more than anything else in the world is sympathetic friendship and understanding. Remember that he has suffered intensely before reaching the extremity of attempting to end his existence on earth. The pain may be mental or physical; and when it becomes unbearable, when no solution or hope is seen, when everything is gone but the misery and loneliness and bafflement, then he turns to suicide as his only way out. The urge to live is strong and does not yield until it is exhausted in the vain act of beating itself against the bars of an unrelenting circumstance.

At times, the moment of approach to actual suicide intensifies the very consciousness of living. The heart beats fiercely, the faculties are all alert. One lives the last moment in an intense awareness of its meaning, not in a dull subordination of the personality. One is acutely conscious of himself as an individual, keenly regretting a decision for whose acceptance he can find no alternative. There may come a kindly moment, perhaps the result of utter weariness, when one has a brief sense of detachment from the scene and is able to see it from an abstracted and objective point of view. Conscious in an intense but tired way, one seems almost able to dissociate himself from the personal tragedy, to feel his own consciousness as a gross absence of feeling. In that moment he has the final, needed courage to pull the trigger or to jump from the cliff.

A study of authentic data reveals the fallacies of many of our cherished ideas. For example, suicide in this country is *not* rapidly increasing. The United States Census Bureau's publication, "Mortality Statistics," shows that the rate for 1920 was only 10.2 per hundred thousand; whereas, in 1900 it had been 11.5. Rather typical of recent years was 1937 with a rate of 14.9. Nor is there any marked correlation between business depression periods and suicide cycles. The slight rise of the curve of frequency at such times is given a disproportionate emphasis by the newspapers. Nor was there a great suicide epidemic among college students in 1927. The press, early in that year, alarmed the country with sensational articles. An "epidemic" of suicides was spreading over American college campuses. Leading doctors, psychologists, psychiatrists, educators and clergymen were asked to explain the phenomenon. Their articles appeared in print everywhere. They decided, in melancholy reflection, that the schools had failed to help students in the search for a unifying philoso-

phy of life or had destroyed old ideals without implanting new ones.

But let us look at the facts. During this three month "epidemic," according to reliable data, there were twenty-six such suicides. Now, a comparison with the *Biennial Survey*, issued by the Office of Education, shows that there were at that time nearly a million college students in this country. That means that the suicide rate among them was about 10.4 per hundred thousand, a figure which was less than the general national rate of 13.3 for that year. The fact is that suicide among college students was not new by any means; but to call the slight rise phenomenal, which failed even then to bring the rate up to that of the country's population in general, is fanciful and misleading in the extreme.

Another popular misconception which has often provided the basis for good reading material when other news has been scarce, has had to do with the supposedly high suicide rate of the United States in comparison with other countries. The fact is, this country has about as low a rate as any of the large nations. Germany's rate is always higher, and as a suicide nation she leads the world. Ireland, incidentally, is always either the lowest or among the lowest of the civilized nations, a fact which some authorities attribute to the great number of Catholics in the country. It is well known that people strong in the Catholic faith yield to the suicide impulse less frequently than do Protestants.

Again, much has been said of the supposedly high rates in general among youths. But facts show that over half the suicides are among the oldest fifth of the population.

All evidence on the subject shows that occidental men are about three times more apt to commit suicide than are occidental women. However, at adolescence, the female rate sometimes rises above that for males.

Saloon-keepers and brewers always rank near the top in suicide mortality tables, while clergymen everywhere invariably rank at or near the bottom of the list.

In all countries, the suicide rate is higher among Army men than among civilians, whether in war or peace, although suicide everywhere, and especially in the Army, decreases markedly during war time. And Army officers always have a considerably higher rate than do their men.

Another interesting fact is that unmarried persons commit suicide more frequently than do the married.

Generally speaking, the educated classes are more apt to have high rates than are the uneducated. But to blame education for the high rate does not satisfy the equation. Rather, it seems reasonable to suppose that the same restless ambitions within an individual may contribute to both his desire for an education and to his depressed state of mind or his dissatisfaction with life in general.

All comparative statistics show an astonishingly low rate among Negroes. The white man is invariably from three to five times as likely to kill himself as is the colored man.

The highest rates are in large urban centers. Budapest and San Francisco have each had the highest rate for one or more years. Budapest, in 1926, had a rate of 57 per hundred thousand. In the United States the highest rates are always in the Pacific coast cities. This fact is probably the greatest enigma of the American suicide problem. A glance at the mortality statistics for almost any year will show that California is undeniably our chief suicide area. A partial explanation may lie in the high proportion of aged people in its population.

SHE WALKS IN BEAUTY

My little daughter who is patient, being blind,
Most dearly loves to walk, her hand in mine,
Across the fields and through the woods of spring,
Where every flower blows and every woodthrush sings
It seems for her alone. And this I know is sure—
That each small blossom is more known to her
Than ever it will be to me, poor clod,
For I have only eyes and she has—faith in God.

—John B. Cook

Only a few authenticated cases of extremely young suicides have actually been recorded. In one case a 4 year old Wyoming boy drowned himself in a pool after disclosing his intention of so doing. As a rule, child suicides are motivated by fear of punishment, failure at school, nostalgia or adolescent social maladjustments, including cases of love-sickness and jealousy.

For adults in general, the chief causes are melancholia and physical pain. Several scientific studies attribute more suicides to pain than to any other factor. Also ranking high are financial failure, disgrace, illness, convictions for crime and loneliness. Grief and disappointments of all kinds take their toll as do jealousy, fear, love-sickness and other emotional disorganizations. Occasionally a person kills himself simply in an angry tantrum. Others have been known to die by their own

hands in experiments to investigate the possibility of life after death.

In some cases the chief cause has been lack of sleep. Malnutrition has sometimes been a highly contributory factor. *Tedium vitae* itself is recognized as a potent danger. Among cases involving mental depression, the leading factor is melancholia, the chief element in manic-depressive insanity. Next in frequency comes dementia praecox [adolescent insanity] or paranoia [delusions], the latter an incurable state often producing homicidal tendencies.

The incidence of mental deficiency may be manifested variously on a scale ranging from simple amentia [idiocy] to violent paranoia. But the more simple cases of neurotic maladjustment and personal pathologic disorganization do not, of themselves, produce a suicidal mania but may contribute to the despondency that later culminates in self destruction. If one is more or less inarticulate with society, he has no adequate mode of response for the situations in which he finds himself. His routine of conduct is disturbed and his entire nervous mechanism temporarily affected. An acute mental distress may result from such feelings. In fact, people have been known to die of homesickness. An understanding of the facts and a knowledge of the procedures in reestablishing oneself would probably save life in many instances.

For centuries, the attitude of society toward suicide has been characterized by gross ignorance. Various odd punishments have at times been invoked against the act. For many generations an almost worldwide practice decree that the body should be buried in some unusual place (frequently a public highway) with a stake driven through it. In some countries it has been the custom to dishonor the corpse by hanging it, head downward, in a public place. Sometimes it has been publicly dragged through the streets. And in various civilizations there has prevailed the custom of mutilating it in hideous ways, of which the not too delectable details may best be left to the reader's imagination.

Religious and civil officials alike condemned the body to an unhallowed grave and the soul to eternal torment. They categorized the act as cowardly or insane, and they castigated the remains as a *post obitum* expression of their disapproval and as a warning to others who might be so simple as to think that, after death, their corpses would prefer not to have stakes driven through their abdomens.

In England, suicide is a felony, and some Christian sects refuse a regular ceremony or

church burial. In several countries the burial rites are forbidden by civil law, and regular inheritances are disallowed.

In Scotland during the sixteenth century a wave of high suicide rates among women was effectually stopped by a decree that the bodies should be exposed nude in the market place. That vanity reaches into the grave is seen also in the fact that few women used methods of suicide that will disfigure them. A woman is not likely to shoot herself and almost certainly never in the head. Frequently, women who plan suicide purchase special clothing to wear or even buy jewelry or cosmetics. They like to die in fine underwear, sometimes donning lingerie of an appearance and quality that they never had afforded in life. A careful arranging of the hair and clothing and a nice bath preceding the suicide show that the feminine taste is still discriminating.

Self destruction is not an incident of the twentieth-century philosophy; but it seems probable that the wide social dislocations of our age have, to some extent, increased the rate. In all ages the phenomenon has been known to civilized peoples. During the early Christian era girls frequently killed themselves to avoid physical violations. Such conduct was expected and approved. In many cases the victims were publicly honored in posthumous ceremonies and in some instances were actually canonized.

For hundreds of years suttee was practiced in oriental countries, especially in India. The widow threw herself on her deceased husband's funeral pyre, supposedly to go with him to his future life. The practice became widespread, finally threatening all of Asia, and unnumbered thou- *(Continued on page 360)*

Cosmetics—those magic beauty makers—seldom do much harm to the skin. Actually, their greatest abuse occurs when sales-mad manufacturers attempt to endow their products with properties that do not exist.

By HOWARD FOX

DEBUNKING

NOTE.—Under the Food and Drugs Act of 1906 the cosmetic industry functioned with little or no restraint. Occasionally the unfair trade practice laws of the Federal Trade Commission were used to inhibit extraordinary claims, and occasionally manufacturers stepped into therapeutic fields; otherwise there was practically no limitation on the use of misleading names or deceptive containers or foolish advertising claims. In 1938 the Wheeler-Lea Act and the new Food, Drug and Cosmetic Act were passed. Now the Federal Trade Commission can require a manufacturer to show cause for certain claims. If such cause cannot be shown, a stipulation or a cease and desist order is issued with a view to preventing such claims. Thus the Federal Trade Commission has ordered certain manufacturers not to use the word "nonallergic." The Federal Food and Drug Administration, which enforces the Food, Drug and Cosmetic Act of 1938, recently notified manufacturers, packers and distributors of cosmetics that certain names and statements used on the label of cosmetics contravene requirements of the statute which have now become effective. The official release states that:

"The extent to which the use of such claims which may be regarded as false and misleading prevails suggests the propriety of a general notice to the trade to encourage appropriate label revision. It is, of course, not practicable to list all the claims that may be unwarranted; the following, however, are typical examples of some that are regarded as false or misleading:

Contour cream
Crow's foot cream
Deep pore cleanser
Depilatories for permanent removal of hair
Products represented as depilatories but which merely bleach the hair
Eyelash grower
Eye wrinkle cream
Hair color restorer
Hair grower
Hair restorer
Nail grower
Nonallergic products
Peroxide cream
Rejuvenating cream
Scalp food
Circulating cream
Enlarged pore preparations
Hair revitalizing preparations
Muscle oil
Nourishing cream
Pore paste
Skin conditioner
Skin firm
Skin food
Skin texture preparations
Skin tonic
Stimulating cream
Tissue cream
Wrinkle eradicator
Cosmetics represented as valuable because of their vitamin content

"A number of preparations have also been encountered which appear to be misbranded because they are represented as containing ingredients not actually present or present in insignificant proportions."—THE EDITOR.

COSMETICS

Steve Heiser

DAMAGE to the skin from cosmetics is rather uncommon in view of the enormous amount of beautifying preparations used in this country at the present time. However, certain types of cosmetics occasionally, cause damage; these include hair dyes, creams, powders, rouge, lipstick and even nail preparations. Mention should be made of one of the most dangerous drugs to use for the hair, namely paraphenylendiamine. This was the main constituent of a certain dye for the eyelashes which caused a number of cases of blindness and one death.

My object is to call attention to the ridiculous claims and misleading statements that have been made and are occasionally still made by the manufacturers or purveyors of cosmetics. The advertising matter of a certain preparation spoke of the skin as an organ of "exquisite delicacy." This is sheer nonsense, as the skin is a waterproof covering of the body which is extremely tough and resistant and able to withstand an incredible amount of abuse and injury. The tender skin complex is one that satisfies the ego of many women and, I must admit, a few men. They think a tender skin is sort of a mark of aristocracy.

Some of these "tender skinned" ladies have an idea that they can never indulge in the luxury of an honest washing with soap and water. I have heard a number of ladies say with apparent pride that they hadn't used soap and water on their faces for twenty years. The obvious rejoinder is that their faces must be pretty dirty by this time. It is true that a cream of some kind will remove much dirt, though no woman with a normal skin would think of washing her hands with cream alone.

Some of the advertising material almost assumes that the average American woman has no sense of humor. Listen to these suggestions with a straight face if possible. They were written to advertise a certain type of cold cream. The seeker for beauty was advised to "sit before a mirror, resting the elbows on a small cushion, so as not to coarsen the skin of the elbows." After this precaution the instructions said to "dip tips of first three fingers of each hand in the cream. Apply finger tips to the skin and press *gently*, first, second, third, first, second, third, until you have counted thirty—one count to each finger pressure. Then slide the fingers along until they cover the next space." And now comes the instruction for a remarkable technic. "The pressure should be *very* gentle, not quite as heavy as that used in *pressing an electric button. Do not strike* as though playing a piano. This will injure the delicate underlying nerves," which is of course absolutely without scientific foundation. The advertising material says further, "A very slight rolling motion of the wrist will assist in perfecting this remarkable new method. The finger tips," it says, "should cling to the skin."

All this nonsense which is described as "not requiring over fifteen minutes" is probably as good as any other for those who have time and inclination to amuse themselves in this manner. At least it is harmless.

The statement that cosmetic preparations preserve the skin is frequently made and in my opinion is untrue. It has often been said that men have as good a complexion as women, the comparison naturally being made in persons of the same age and social condition. I have discussed this question with many women, most of whom have generously said that the average man has an even better complexion than the average woman. If the statement is true that men (who use no cosmetics) have as good a complexion as women (who do), then the argument that cosmetics preserve the skin is completely shattered.

A perfect example of cosmetic fallacy is furnished by the words "nourishing cream." Needless to say, no such thing exists. Your skin is nourished in exactly the same manner as your muscles, bones, internal organs and other parts of your body—solely by the food that is taken into your stomach. The value of creams is to soften and protect the skin, to remove a certain amount of dirt and to serve as a basis for powders. The same cream will accomplish all these objects. The sale of a cream for nourishing the skin is nothing more than a fraud.

But how the cosmetic industry has flourished on the word "pores" and its corollary astringents. Cosmetic advertising leads the unwary to think that the sebaceous gland pores, the only ones that are visible, open and shut like the mouth of a fish. You are told that all you need to close the pores of a coarse skin is an application of the magic astringent. This, of course, is not true, as they cannot be closed by any method of treatment. The word pores has proved to be a gold mine to cosmeticians.

Then we have "muscle oils" and "wrinkle removers," all of which help no one except the stockholders of cosmetic preparations. You are given to understand that you can oil up the involuntary muscles of the skin as though you had a tiny oil can. Obviously, no preparation applied to the skin has any effect on the muscles of the skin, and, as some one has said, "why should the muscles need oiling?" Nor will any cream do away with wrinkles which are due to disappearance of the natural fat under the skin and a lessening of the tension of the skin.

The advertising copy for cosmetics is careful to avoid words that might offend the public. For instance, you never hear such a crude expression as "dyeing" the hair. Such terms as "tinting" the hair, which of course means dyeing, or "restoring" the color of the hair are substituted. Hair preparations which change the color of the hair either dye or bleach it. Both of these procedures, I might add, are harmless in the great majority of cases. However, one of the so-called "para" dyes occasionally causes a violent inflammation, which nearly always subsides spontaneously without doing permanent damage. Bleaching the hair makes it brittle and less tolerant of permanent waves. Gray hair can only be concealed by dyes and, at that, rather imperfectly.

It is interesting to compare some of the fantastic cosmetic claims in the women's magazines with the cynical views expressed by cosmetic manufacturers in their own trade journals. The author of "Skin Deep" [1] writes, "If you are not aware that it [advertising] need have no basis in fact, and that men who write it, do so with their tongues in their cheeks, here is a final quotation which sums up the whole situation." The author then quotes the following passage from an article in a trade journal of the cosmetic industry. "We know from personal experience that some of the best products in the trade are made by concerns which are not big scale *(Continued on page 361)*

1. Skin Deep, by M. C. Phillips, Garden City, N. Y.: Garden City Publishing Company, 1934.

After the War Is Over—

***Illness and injury follow in its wake, and since the sufferers must have medical attention, elaborate hospitals have been constructed to care for them. One of them is described by* GRACE IGO HALL**

Weaving rugs is one of the occupations of the ex-soldiers at Fitzsimons General Hospital near Denver, Colo.

SERGEANT Ernest Nicholson peered cautiously through a chink between the sand bags edging a trench which faced the Landwehr Prussian guards at Meuse-Argonne, in September 1918. Gas! Suddenly, as if it had dropped to earth from the overcast gray skies above, huge, swiftly moving clouds of it were approaching him like a heavy fog rolling over the landscape. Immediately he snatched up his gas-mask, adjusted it to his face and pinched together the walls of the corrugated hose just above the cannister nozzle. But as he inhaled he drew in a whiff of poison gas, and with that breath he realized that some place, somewhere in his gas-mask there was a leak! His nose burned, a choking sensation filled his throat, and he went down in a crumpled heap in the mud trench.

Weeks later, he opened his eyes in the Seventy-Sixth Division Field Hospital. He had been so badly gassed that the doctors thought that he would certainly die. In the long days

that followed the enemy's attack, as Sergeant Nicholson lay on his bed, helpless, staring at the white wall of his hospital room, he had plenty of time to think. The future looked anything but bright. What would become of him? What would become of his wife and children? Even though he lived, more than likely he would be a miserable, useless person for the remainder of his days.

Just recently, I went to visit the Army's famous Fitzsimons General Hospital, just outside Denver's east city limit, where Sergeant Nicholson and more than 900 of his buddies live. This great institution embraces over 595 acres of ground. Seventy-three buildings—most of them large, white, two-story structures laced together with many miles of sidewalks and paved streets—are scattered over the area, a veritable empire in itself; it has its own fire department, police force, power plant and all other municipal facilities that are found in any city of several thousands in population.

To the right, as I drove into the grounds, was a tall chap playing golf on the nine-hole golf course; while on the left a red-haired man, dressed in a gray bathrobe, sprawled out in a red and white, candy-striped lawn chair and laughed outright at some happening in a book he was reading. Immediately next to him two men sat quietly, deeply engrossed in checkers.

Everywhere I looked I saw groups of men, some dressed in sports clothes, some in lounging robes, absorbed in conversation, talking, laughing; others were reading magazines, newspapers, books; a few dreamily smoking, their thoughts apparently far away.

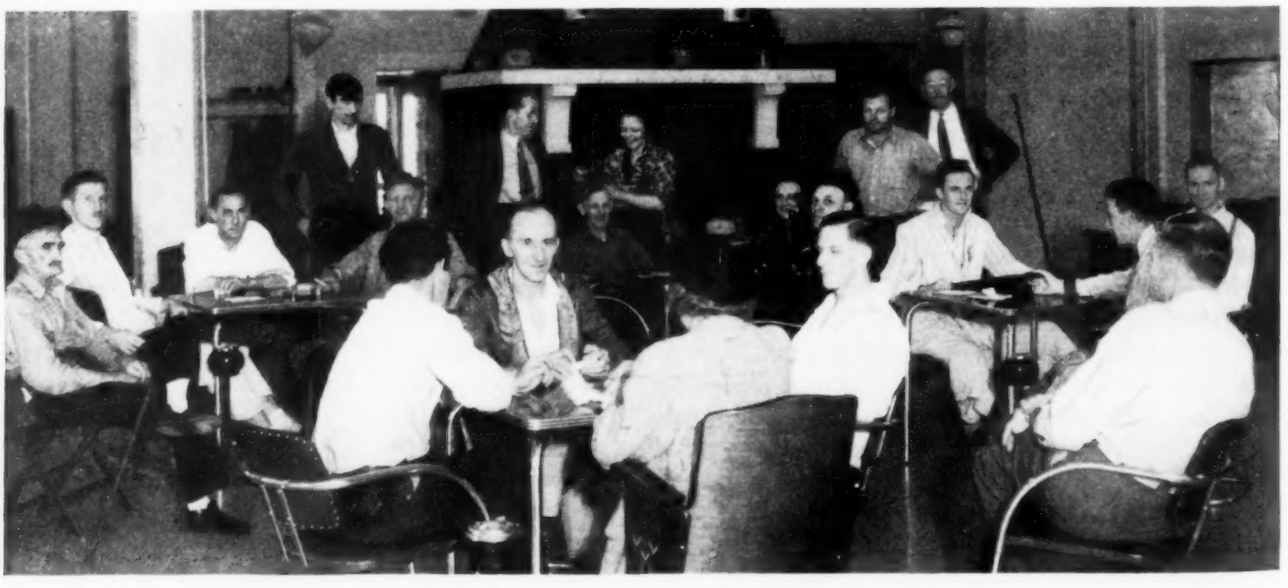
An orderly ushered me from the information booth into a large sunny room where the commanding officer sat behind a large desk. After conversing with him for a few minutes he said, "Our hostess is the person who can help you most. Come, I'll introduce you to her right now."

The hostess of the hospital handles the important task of supervising every man's idle hours. She finds books for them to read; she arranges entertainment for the evening hours and in general sees that each patient is occupied in a way he enjoys. A small, alert, gray-haired man, now in his early fifties, sat in a huge easy chair in front of a crisply white hospital bed, working on a beautiful woven rug. Face beaming, eyes sparkling, he held it up for the hostess and me to see as we passed by.

As I walked with the hostess between rows of single beds strewn with such articles as half finished, brightly colored rugs and gay beaded belts being made by the men, I stepped aside to ask, "Isn't it difficult to find things that will fill the hours agreeably and hold the interest of so many types of men?"

Slowly she answered, "Being with them day after day, it's only natural I learn to know them, to find out what they like to do. Then I always encourage them to do whatever they like best."

We entered the long hall in the tuberculosis section of the hospital. I started to follow her but stopped short at the open door on my right, where across the room stood a line of men stripped to the waist.



Patients entertain themselves by various means; playing cards is one of the favorite pastimes.

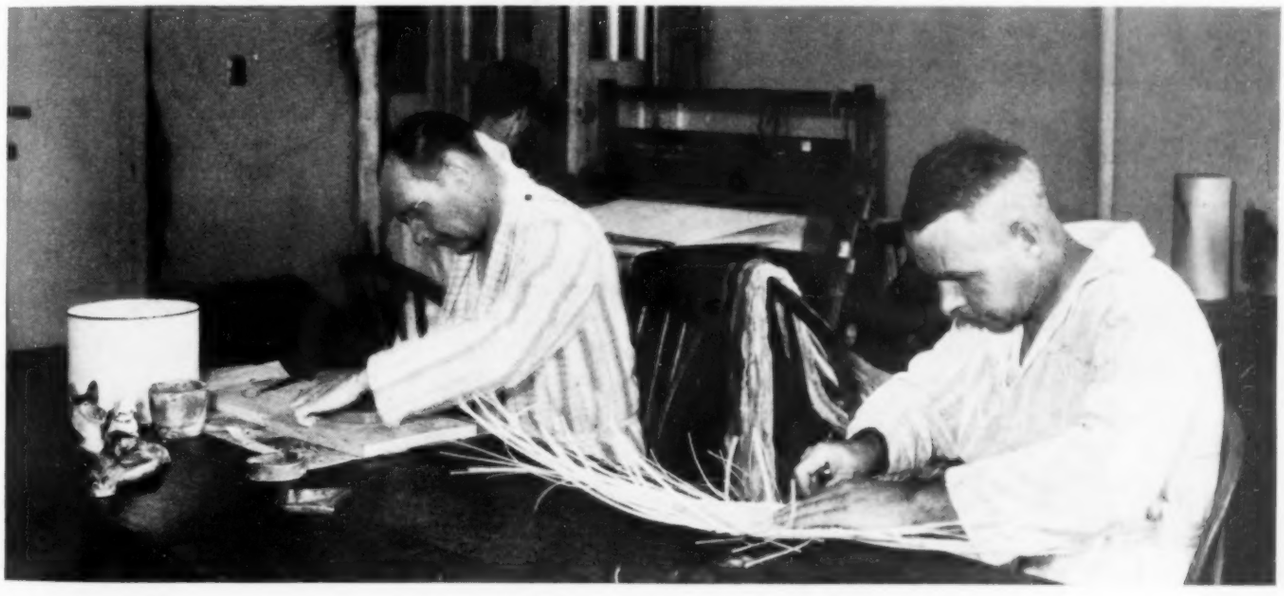
"These men are receiving artificial pneumothorax. It's quite all right for you to come in."

A man got on the table, was surgically prepared, and we watched the doctor as he inserted a long needle into the man's side.

"You've been feeling a lot better since taking these treatments, haven't you?" the doctor asked the man as he withdrew the needle.

"You said it, Doctor! If I keep on feeling like I have lately, I'll soon be well," the man answered with a wide grin, as he pulled himself up to a sitting position and stepped from the table. While another man was getting on the table, the doctor washed himself and prepared a new needle.

Here hundreds of men yearly benefit from this treatment which is the most widely used method in the care of tuberculous patients.



Among the occupations taught these men are clay modeling, basket weaving and rug making.

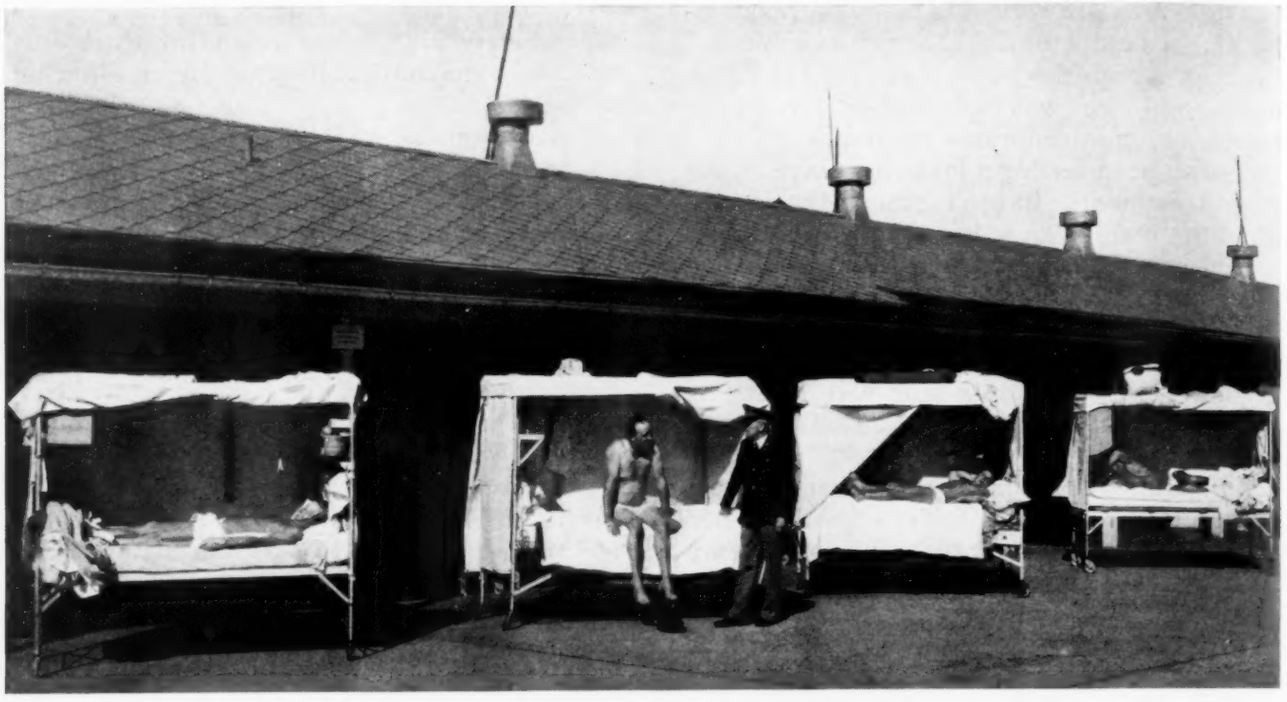
In a treatment of this type the doctor introduces a needle into the chest wall and thus allows the air to flow into the sac that surrounds the lung, causing a collapse of the lung and promoting rest and healing. A patient receives this treatment according to his needs. At first he may require treatment rather frequently, as often as two or three times a week. Later, one in even two weeks may be sufficient.

Another chap was saying, "When I first came here, in November 1936, from Fort Sam Houston, Texas, I was so sick they couldn't give me the artificial pneumothorax treatments. So they gave the phrenic nerve one." He continued, "You see, in treatment of this sort, the doctor cuts the phrenic nerve or crushes it, or sometimes he may even remove a portion of it. This causes the diaphragm to become paralyzed at a slightly raised position, which immediately allows less room for expansion and rests the lung somewhat by this partial collapse."

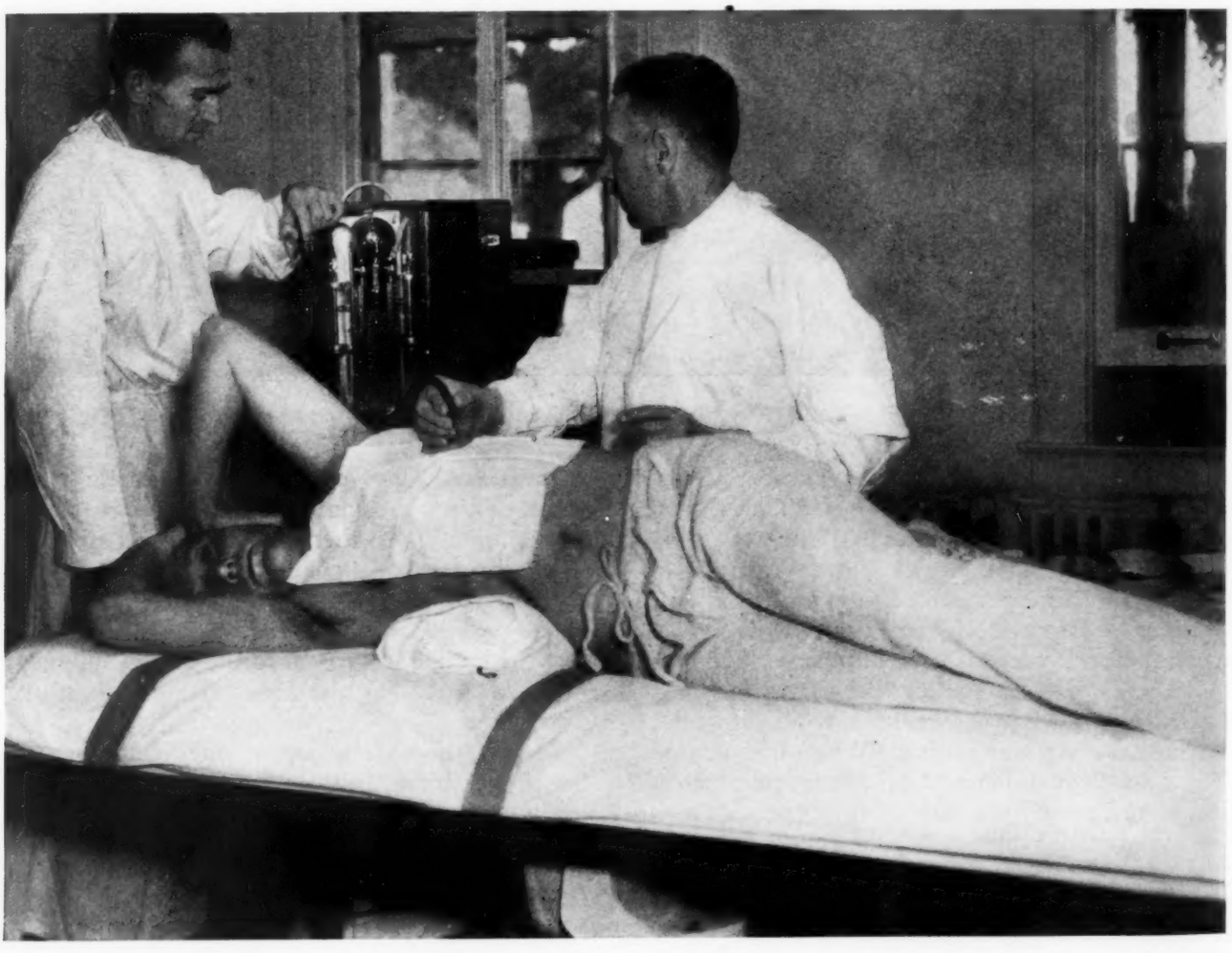
Then another patient was eager to explain his treatment: "The rib job, as we fellows here at the hospital call it, is really the thoracoplastic treatment. It produces a permanent collapse and is never given a man unless the doctors think that otherwise there is not much hope for recovery of that side." He went on to relate how in October 1935, he had arrived from tropical service, and his disease was considered far advanced. For over a year he had shown no appreciable improvement. During that period he was given the artificial pneumothorax treatment in both lungs. Finally, in a last desperate effort to save his life, with his consent, he was given the thoracoplastic treatment. This is the complete removal of the ribs, or such portion of them as will permit collapse of the diseased part of the lung, thus promoting healing and—more important—preventing the further spread of the disease. In the last few months he has improved to the extent he looks forward to leaving the hospital at some future date.

Today, through scientific medical research the lung is being splinted much like they splint broken bones. Of course, physicians cannot always foretell the outcome of this permanent operative procedure, but many have been treated by thoracoplasty and are now on the road to health.

Before we left the room the nurse showed me the x-ray machines which take pictures of



The beds are wheeled outdoors, and the patients suffering from certain types of tuberculosis reap the benefits and healing power of the sun's direct rays.



One of the several hundred tuberculous patients at this hospital receives artificial pneumothorax. In this treatment, air is injected into the chest wall, and the lung is put at rest.

each patient's lungs. This x-ray machine plays an important role in the proper diagnosis of tuberculosis; it indicates the extent of the disease in the lungs and may aid in determining whether surgical intervention is safe.

Although these measures are wonderful in helping to cure tuberculosis, rest is still the basic treatment for tuberculosis, and the other measures are only given as aids which shorten the period of sanatorium care.

Tuberculosis is not the only disease treated in this great hospital. In the last few years, a thousand other medical and surgical ailments have been treated. Of the 929 patients, 653 are tuberculous.

"That man walking toward us is a good example of what this hospital is doing for our other patients," the hostess remarked, as we rested momentarily in huge lawn chairs outside in the garden. "He had pernicious anemia and was so pitifully crippled when he was first brought here on a stretcher in February 1936 that I thought he'd never be well again. Then the doctors gave him the liver extract treatment. It wasn't long until he was able to get around in a wheelchair; then he learned to use crutches, and the last few months he has been walking."

I was told of other cases, men who had contracted many different diseases in the World War; some had been in other governmental establishments and had not improved as satisfactorily as expected. There was another veteran whose high blood pressure had caused the blood vessels to burst so rapidly in his eyes that he lost sight in both of them. By taking treatments prescribed by the doctors, along with proper rest for a period of six months, his eyes were restored to normal vision.

Still another outstanding example of the wonderful work going on in this great hospital is that of a patient who entered the hospital several years ago, his arms twisted with arthritis; it had even affected the tissues of the spinal column. Yet, today, because of the frequent treatments given in the fever therapy department, he too will soon leave the hospital as a cured case.

When a man's case history is taken, he is given blood tests, urinalysis, a feces test, an examination of his sputum, a spinal fluid test and the many others which are necessary to show the doctors the exact medical condition of the patient. The hospital laboratories are typical with their many tables covered with rows of shining instruments and numerous glass cabinets filled with various-sized bottles.

But the next room we visited was what really interested me most. All around the wall were dozens of cages filled with animals: rabbits, chickens, mice, guinea pigs. The doctor commented, "All these animals are used for experimental purposes of different kinds. Some of the small tuberculosis germs, along with various other germs, are given to them in different amounts; then the animals are observed and studied carefully. The valuable facts that are uncovered with these diagnostic tests and experiments help us with our work here in the hospital, since every detail, every process is checked repeatedly with these animals."

Think of it! Every year, over 100,000 routine diagnostic examinations are made in these laboratories, in addition to conducting research. These laboratory workers are constantly investigating methods which will not only be of benefit to their own patients but which may advance medical knowledge in general.

In the surgical sections of the hospital, the most experienced surgeons and nurses are selected to work at Fitzsimons. The hospital has completely equipped operating rooms, treatment rooms and wards that handle the operative treatment not only of tuberculosis but all types of general surgery.

One of the crowning triumphs in eye surgery was performed by two Army doctors in February 1938, in the eye, ear, nose and throat department of Fitzsimons General Hospital, when a veteran who was blind in one eye was given a new eye to replace the sightless one. This delicate operation, fascinating to physicians and surgeons throughout the Rocky Mountain region, was similar to cornea transplants that have been performed in Russia and France for several years and a few times in the United States; but it was the first to be performed in this part of the country. It takes skilled men to accomplish such brilliant surgery as this. A few months after the operation had proved successful, I talked to the patient who leaned comfortably back in his chair as he looked at me from two equally good eyes.

"Sure, I've got two good eyes instead of one, thanks to the doctors here, and to a farmer who lives near Denver. He gave me his eye which 'wasn't worth a dime' to him, or so he said."

Then pausing for a second, a wide grin covering his face, he continued, "And, Mrs. Hall, did I have a lucky break? One of the first things I attended *(Continued on page 348)*

DOES YOUR CHILD

DOES your child worry? The habit of worrying reveals an attitude of mind that is not conducive to the development of a pleasant and happy personality. It indicates a feeling of inadequacy and insecurity. To the worrying child the difficulties of life loom as fearful ogres. Children should be taught not to worry about many things that will probably never happen. They should be made to realize that normal living subjects us to certain dangers, but we must learn to take chances when necessary, that some things are bound to happen eventually and that "the coward dies a thousand deaths, the brave man dies but once."

But why do children worry? If your child worries habitually you had better take a look at yourself. Are you calm, contented and uncomplaining? Are you annoyed by little things so that your brows are always puckered up and you wear an eternal frown on your face? Do you unconsciously express fears, and do you constantly warn your child to be careful about one thing or another? Children imitate worrying parents. Gay and happy parents instil their spirit into their children.

This does not mean, of course, that we should not teach our children to solve their own problems. But there is a difference between worrying and carrying responsibilities. One is fearing the situation, and the other is solving the problem. We should teach our children to work to prevent failure rather than to sit down and cry about the possibility of its happening. We should also teach them to profit from failure when it does occur.

Perhaps you will say all this talk is unnecessary; that adults do all the worrying, while children have not a care in the world. In a special study we asked these questions:

1. *Do children worry?*
2. *What do children worry about?*

We asked 233 12 year old children to list the three things they worry most about. We also gave them a test to measure their psychoneurotic tendencies, or what is commonly called nervousness. We made a list of the worries given by the children and asked 133 other 12 year old children to indicate whether or not they worry about the items listed. A copy of this test is given on page 311. You may be interested in using it to test your own child. The results showed that only one out of every four children claimed he had no worries. It seems totally unnecessary for 75 per cent of our children to be seriously worried about different matters.

Is it bad for children to worry? Does it indicate anything about their mental health or personality development? In studying their scores on the Woodworth-Cady questionnaire used to measure psychoneurotic, or nervous, tendencies in children, we find what psychologists call a reliable difference between the worrying and nonworrying groups. The children who worry are much more neurotic. In other words, excessive worrying is a sign of nervousness. However, there is a difference between worrying and carrying responsibilities. Children must learn to carry responsibilities without worrying about them. For it is often the fear of problems, the lack of courage to face and solve them, that causes the child to worry. We must therefore allow children of all ages to assume responsibilities that are commensurate with their abilities and experience and to take those duties with full confidence in their ability to carry them out. Experience and success in solving his problems should keep the child from worrying and help him look forward to other activities of life with happy anticipation. Of course, it is the parent's attitude and faith in the child that does the trick. For the child imitates his parents so much so that worrying, grumbling parents will have worrying, grumbling children.

We find, then, that children do worry, and we are often totally unconscious of the things they worry about. Some of their worries may deal with important matters, while others may be trivial. Since the child often cannot properly evaluate the importance of a problem, he may spend many unhappy hours in worrying about simple things that could easily be corrected if we knew just what was troubling him.

We used the questionnaire, based on the children's worries, to obtain a record of the things about which 12 year old children worry. From the questionnaire reprinted on page 311,

WORRY?

By ROSE ZELIGS

we see that their worries cover school activities, health, safety, economic factors, social relationships, personal appearance and conduct.

School marks and reports are a constant source of worry to children. When report cards are passed out in school some children tremble with fear in anticipation of the unhappy scene at home. The child's constant worry about school marks shows, first of all, that parents and teachers are overstressing the importance of marks instead of emphasizing the value in the child's progress or the extent of his growth since his last report. It shows also that scolding and punishment for failure is like locking the stable after the horse has been stolen. Genuine daily interest in the child's work and problems, encouragement and consideration will help create an environment conducive to success.

This was vividly demonstrated not long ago. In my class, I have two boys of about the same intelligence. Louis isn't getting along well in school. His parents scold and punish him. They deprive him of all privileges and nag him constantly about his homework. They know nothing about his lessons. To them the child's job is to satisfy the school authorities and to get good report cards. They are even willing to pay him a dollar for every "A" he gets on his report.

Teddy, however, is really enjoying school. His parents make him feel that his work is interesting and important. They show pride in his achievement. I met his father the other day with his arms full of books. He told me, with much satisfaction, that Teddy was working on a special essay on the life of Lincoln. "He needs certain books that cannot be obtained from the branch library, so I am bringing him these from the main library. Last week he was in a debate on, 'Is a good education better than wealth?' I took the opposite side and debated with him so that he could have the practice of answering arguments quickly. My wife got so interested that she argued on both sides," he added enthusiastically. "You know, I think Teddy will be a great lawyer some day," he said proudly.

The child's progress should be judged in relation to his abilities. Comparisons should not be made with the work of other children in the family or in the classroom. Perhaps it would be wiser to report a child's progress in a letter to the parents, stating the pupil's attitudes and improvements rather than giving definite numerical marks. This course is pursued in some schools.

Are you always complaining about your health? If so, you are creating a serious worry in the mind of your child. The children of our study worry more about the health of their family than about anything else. Some of them also worry about their own health, about having headaches and about not being able to fall asleep quickly. They express fear that people might die and worry about those who have died. This suggests that perhaps the child is imitating parents who are constantly mourning their lost ones. I know a child who is unhappy because her mother keeps weeping about a sister who died five years ago. The mother is giving more thought to the dead child, whom she cannot help, than to her five living children, who need the influence of a cheerful and inspiring parent.

Related to health is the idea of safety. The need for stressing safety is apparent in an age where the mechanical god rules supreme. People's needs require them to do much traveling. Complicated gadgets in the home and machinery in the factories increase the possibilities for accidents. Realizing the need for safety education, organizations have gone into it enthusiastically. Recently a motion picture on safety was shown in the school. Happy families going on picnics, fun-loving couples taking trips—all started out with joy and anticipation, but each ended in a horrible automobile accident. Some of the children shrieked with fear at the vivid details. I wonder whether it is necessary to teach safety by creating terrible fears in the hearts of our children? Would it not be better to show them the way by the daily practice of safety wherever the need occurs? It is good psychology to emphasize positive values.

Many children worry about persons who are hurt, about the increase in automobile accidents and that they themselves may be hurt in such

an accident. Some of them fear that their house may catch on fire, that the family may be murdered or robbed, that they may be bitten by a dog or slip on something slippery. That their dog might get run over is a common cause of anxiety among these children. The sudden disappearance of little brother or sister is a great cause for anguish in 12 year olds. Of course, we should be careful in everything we do, but the possibility of danger should not produce constant fear and worry.

The present generation are children of the depression. They worry about economic conditions. Business is bad; their fathers may be out of work; big brother or sister can't find a job, and future opportunities for them will probably be meager, they believe. Some of them fear that they may become terribly poor. They also worry lest their things be lost or stolen. The power and prestige of money have become so great that many persons are ready to excuse all sorts of practices labeled "Business." Is it any wonder then that our children overestimate the importance of the "almighty dollar," especially since many of them have been taught to associate leisure with spending?

Twelve year old children see the need for satisfactory social relationships with the larger social group. They worry because they can't make friends quickly and because they feel they are not popular. Many of them are concerned about their personal appearance, about being too stout or too short and about the necessity of wearing glasses. The girls worry especially about clothes and about whether they will be pretty when they grow up, while the boys want to be tall and strong.

In regard to personal conduct, the children are anxious about supposed misbehavior and fear that they may be punished. They are afraid they may not satisfy their mothers in their work and conduct.

So we see that children worry. The girls worry much more than the boys. Perhaps the boys can "take it" better, or maybe we have taught them that boys must be brave, while girls need to be protected. It may be considered a desirable feminine trait for girls to be timid and to worry about one thing or another. But is it?

Perhaps we have not realized sufficiently how the details of everyday life are influencing our children and building their life philosophy. Let us try to give them a wholesome outlook, so they may face their problems cheerfully and courageously, without dread or fear.

Children do worry about many things, among which the need for satisfactory social relationships, or popularity, stands out as a prominent cause of worry.

TEST on WORRIES

DIRECTIONS. If you have the habit of worrying about one of the things listed, put a circle around the word *YES* in the column opposite it. If you never worry about it, encircle *NO*. If you worry about it occasionally, encircle the word *SOMETIMES*.

I WORRY

1. about passing to the next grade. Yes No Sometimes
2. about my school work. Yes No Sometimes
3. about school marks and reports. Yes No Sometimes
4. about arithmetic. Yes No Sometimes
5. about high school and college. Yes No Sometimes
6. about tests in school. Yes No Sometimes
7. about piano lessons, or other music lessons. Yes No Sometimes
8. when I have to give a talk. Yes No Sometimes
9. about getting along with my teacher. Yes No Sometimes
10. about the health of members of my family. Yes No Sometimes

I WORRY

11. about my own health. Yes No Sometimes
12. that people might die. Yes No Sometimes
13. about people in my family who have died. Yes No Sometimes
14. because I have the habit of stuttering. Yes No Sometimes
15. because I get headaches. Yes No Sometimes
16. because I have a hard time falling asleep. Yes No Sometimes
17. when people are hurt. Yes No Sometimes
18. that I might get hurt in an accident. Yes No Sometimes
19. that I may fall off a bridge. Yes No Sometimes
20. that I might fall out of a building. Yes No Sometimes

I WORRY

21. when some one is not home at night. Yes No Sometimes
22. when sister comes home late. Yes No Sometimes
23. when we can't find little sister or brother. Yes No Sometimes
24. that the family may be murdered. Yes No Sometimes
25. that robbers may come into our home. Yes No Sometimes
26. that I may be bitten by a dog. Yes No Sometimes
27. that there may be an increase in auto accidents. Yes No Sometimes
28. because the world is so uncivilized. Yes No Sometimes
29. that I might be in an automobile accident. Yes No Sometimes
30. that our house may catch fire. Yes No Sometimes

I WORRY

31. that I might slip on something slippery. Yes No Sometimes
32. that my dog may get run over. Yes No Sometimes
33. about the safety of my pet cat. Yes No Sometimes
34. that my dog might bite people. Yes No Sometimes
35. because I want an electric train. Yes No Sometimes
36. because I want a bicycle. Yes No Sometimes
37. that my bicycle may be stolen. Yes No Sometimes
38. that Father may lose his job. Yes No Sometimes
39. that I may not be able to get a job. Yes No Sometimes
40. that I may lose something. Yes No Sometimes

I WORRY

41. that my things may be stolen. Yes No Sometimes
42. that I may not be able to support my family when I grow up. Yes No Sometimes
43. that we may become terribly poor. Yes No Sometimes
44. because business is bad. Yes No Sometimes
45. about whether I am popular. Yes No Sometimes
46. because I can't make friends easily. Yes No Sometimes
47. because I think people talk about me. Yes No Sometimes
48. about some girl I like. Yes No Sometimes
49. about some boy I like. Yes No Sometimes
50. that we might go to war. Yes No Sometimes

I WORRY

51. if life is real. Yes No Sometimes
52. whether I will be tall and strong. Yes No Sometimes
53. if I will be pretty when I grow up. Yes No Sometimes
54. because I am fat. Yes No Sometimes
55. because I am small. Yes No Sometimes
56. because I have to wear glasses. Yes No Sometimes
57. about clothes. Yes No Sometimes
58. because I don't like my nicknames. Yes No Sometimes
59. because I do not have fun. Yes No Sometimes
60. because I am not good in baseball. Yes No Sometimes

I WORRY

61. that I may get a whipping. Yes No Sometimes
62. because I am bad. Yes No Sometimes
63. because I am not kind. Yes No Sometimes
64. that I may be scolded. Yes No Sometimes
65. that I may be treated unfairly. Yes No Sometimes
66. that I may not satisfy my mother. Yes No Sometimes
67. that I may have to eat foods I don't like. Yes No Sometimes
68. about my future. Yes No Sometimes
69. that I may not have a nice vacation. Yes No Sometimes
70. that I may be punished. Yes No Sometimes

TO SCORE.—Give two points for every item marked *Yes* and one point for every item marked *Sometimes*. Add to get the total number of points. The higher the score, the more your child worries. The average score is 31 for boys and 37 for girls.

This Cross-Eyed World

By GEORGE KENT

DURING the past few years eye physicians have developed a new technic called orthoptics which permits the cure of cross-eye without surgery—by exercise alone. In children under 7, orthoptics is reported to have effected cures in 40 to 60 per cent of the cases. Treatment ranges from two months to a year. With older children, the record is almost equally impressive. Combined with surgery, the new method has proved invaluable for diagnosis, and as a preliminary and follow-up treatment it vastly increases the chances for permanent cure.

The basis for the new science is a somewhat grotesque machine invented by Claude Worth, a British doctor. Essentially, it is a stereoscope divided into two parts, the halves enclosed in black barrels, binocular fashion, but operated independently. With this device, the doctor or his technician can race the eyes in circles, swing them from side to side, measure their deviation and train them to true parallel vision. It is becoming standard equipment in every important eye clinic in the country.

There are between two and three million cross-eyed persons in the United States—and it is no laughing matter. At least five times as many have eyes which appear straight but which actually deviate from normal to a significant degree. Moreover, the number seems to be increasing. Children are overwhelmed with books and comic papers and small toys, when they should be running around, looking at trees and rocks and other large shapes. As grown-ups we use our eyes excessively, reading on trains, working under poor lights, with the result that there is hardly a pair of eyes in America that can be said to be at dead center. Most of us have what is described politely as a normal deviation.

It was 40 years ago that Dr. Worth invented his machine and published a thick volume which laid down the principles of the modern treatment of cross-eye. Together, they wrought a revolution in ophthalmology. Introduced into this country in 1903, the machine created a sensation, being hailed as the long-awaited cure for cross-eye. Unhappily, the instrument was still a crude affair and its operators unpracticed. Results were meager, and when quacks began exploiting it, conservative physicians condemned the budding science of orthoptics, and it fell into disrepute. Later other doctors took up where Worth left off and gradually improved his machine, until it became a true precision instrument.

Tried experimentally in a few London hospitals, the results were so favorable that it spread rapidly, today being essential equipment in British schools and clinics. In 1918, the American eye specialist abroad employed the instrument to pep up the eyes of Army aviators when he was unable to prescribe glasses. Johns Hopkins University started using one in 1926, and a year later the first orthoptic clinic in the United States was opened at the Fifth Avenue Hospital in New York. Today many of our eye clinics practice orthoptics in one form or another.

I visited one of the most successful the other day. The halls were crowded with youngsters of all ages waiting their turn. The training room was cut up into booths, in each of which squatted the binocular-like instrument. On a stool in front of each sat a cross-eyed child. Back of it, sat a white-smocked technician, in every case a young woman.

The technician begins by inserting slides, a different one for each barrel of the instrument. One might be a bird, the other a cage. Or they might be slides similarly linked, as a dog and a kennel, a soldier and a sentry-box. If your eyes are normal, you look in and see the bird in the cage. But if you are cross-eyed and the two movable barrels are separated a normal distance, you will see the bird or cage only.

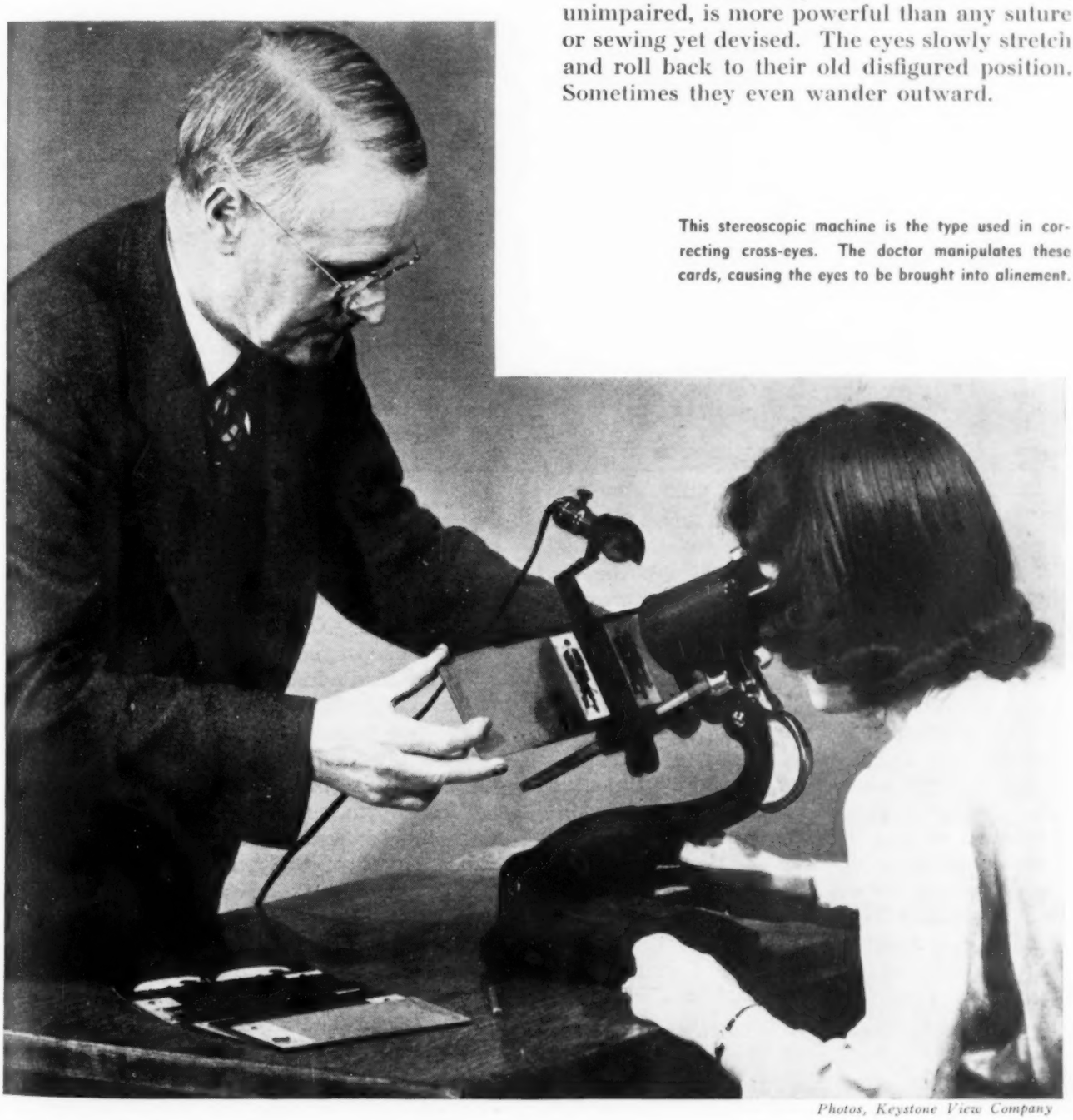
The normal pair of eyes works as a team. They are two cameras which shoot simul-

taneously and which produce two clear images which overlap. These overlapping images are superimposed and fused into one by the brain.

In cross-eye, one of the cameras is turned at an angle. The result, theoretically, should be two separate images, but the brain, having a horror of the double picture, refuses to accept one. It is rejected or suppressed. The crossed eye remains open, but it does not see. The connection with the mind has ceased to exist. This phenomenon of suppression is one we use all the time. It is the knack of being able to go on thinking our own thoughts while listening to a bore, the ability to read while a radio is blasting.

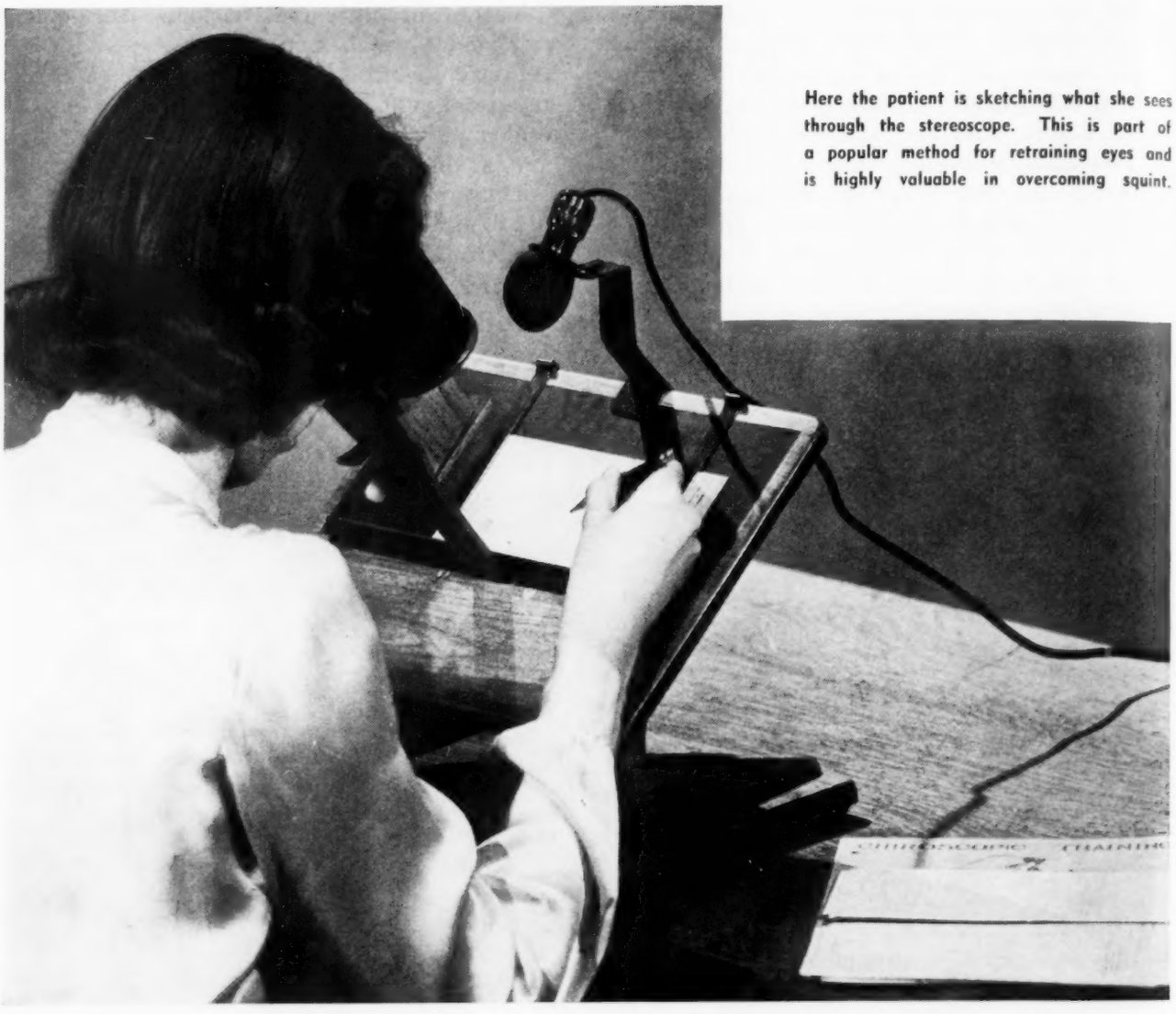
Technically, in correct vision, each eye fixes or "shoots" with a tiny yellow spot on the retina called the macula lutea. A mere dot, it is the key to vision—the part of the eye that makes possible sharp images. The area of the retina that surrounds it produces the dim, background vagueness we get when we see out of the corner of our eyes. In false projection, the good eye uses the macula, but the crossed eye falls into the habit of using the dim portion of the retina.

The result is vision of a sort. But it is poor vision and, what is more, it is a habit which heretofore has been strong enough to overcome all that surgery could do. The operation may have been beautifully done, but this habit, unimpaired, is more powerful than any suture or sewing yet devised. The eyes slowly stretch and roll back to their old disfigured position. Sometimes they even wander outward.



This stereoscopic machine is the type used in correcting cross-eyes. The doctor manipulates these cards, causing the eyes to be brought into alinement.

Photos, Keystone View Company



Here the patient is sketching what she sees through the stereoscope. This is part of a popular method for retraining eyes and is highly valuable in overcoming squint.

The value of orthoptics lies largely in its capacity to train the eyes out of this habit. With the eyes functioning normally, hitting on both maculas, as it were, the task of improving their appearance cosmetically becomes relatively simple. It can be accomplished in all but exceptional cases by regular exercise on the orthoptic instruments.

The principal job of the orthoptist is to teach the children to use the maculas of both eyes. An ordinary stereoscope is rigid. But this instrument is flexible. The slides can be managed so that they are turned at an angle corresponding to the angle of the crossed eye. At this angle, the maculas are trained dead on the subject, and there is no excuse for the patient to employ the dim part of the retina. After a time, he learns to get two sharp, overlapping images which he fuses into one clear picture.

The test of this capacity is simply whether or not the bird is in the cage. I paused at one booth to watch an orthoptist working with a 5 year old child. Inserting the bird and cage slides, the technician asked her what she saw:

"I see a birdie," she replied.

Moving the slides closer by a flip of a wheel, she inquired, "Now, what do you see?"

"Now I see a yellow cage, and I see a birdie."

"Is the birdie in the cage?"

"No-o."

Another turn. "And now?"

Excitedly from the child, "The birdie is in the cage! The birdie is in the cage!"

Well worth getting excited about because once the *birdie* is in the cage, the first and hardest part of the training is over. Functionally at least, the eyes have begun working as a team. The maculas are on the job, and the brain is recording one sharp image.

Outwardly, cosmetically, they are still crossed. Their restoration to the normal axis comes later. The stretching of the eyes back to center is accomplished by moving the slides apart. The eyes watching bird and cage intently follow them, with the result that the

muscles are "pulled out." Thirty minutes of this pulling, two or three times a week, and the eyes stay pulled out and eventually become normal.

The operator I was watching now moved the slides a few millimeters apart. To the little girl, she said, "Now try to keep the birdie in the cage. Don't let him out, no matter what." To hold the bird in the cage is a real feat for the cross-eyed individual, one of the hardest exercises in concentration imaginable. Consider that the delicate muscles of the eye are being strained to capacity as eye and mind struggle to keep together what seems bent on splitting in two. Ten minutes of it, and a strong man is reduced to rags. I know because I tried it. To help the child, the technician told a story:

"A cat is outside. It is waiting to eat up the birdie if it flies out of the cage. We must help the birdie. We must keep the birdie in the cage. Help it. Help it. Is it still in the cage? Good! Keep it there. The birdie likes the cage. The cat is coming nearer . . ."

Parents of cross-eyed children should understand that orthoptics is a form of treatment that takes time, money and infinite patience. The cost per session at the machine averages $2. At the clinics, the charge is much less, and in many cases it is free. The length of time it takes varies with the individual and the type of cross-eye. Six months, comprising two visits a week, is average, although there are instances in which complete cures were obtained in much shorter periods.

When cross-eye is first discovered, the child should be taken at once to a good eye specialist. The period of greatest susceptibility is between the ages of 6 months and 6 years. An ordinary eye examination, under drops, is the first procedure, and if farsightedness is discovered—the usual fault in youngsters—the doctor will prescribe glasses. The glasses alone may straighten the eyes and in time may be discarded.

Neglected, a crossed eye rapidly loses vision. The child, defending himself instinctively against the double image, suppresses vision. The suppressed eye grows progressively weaker until vision is practically gone. After that, being virtually useless, it may revert to the normal axis. These are the cases in which the "cross-eyed cures itself in time." It does once in a while—at the expense of a half-blind eye.

Restoration of visual acuity to the weakened or "lazy" eye is an integral part of the treatment, as important as exercise or glasses. The physician covers the eye with a patch attached to the spectacles or fastened on by strips of adhesive. It is now up to the imperfect organ to do the seeing for two. In the orthoptic department, the weak eye is exposed to instruments which flash lights, rotate disks, swing pendulums in wide and narrow arcs, all calculated to stimulate vision. A California specialist has achieved remarkable results simply by sending the kids to the movies. Two or three times in the theater with only one poor eye to watch Mickey Mouse often brings it back to par.

When vision in the crossed eye approaches normal, the patch can be removed. Its removal is a gala movement in the life of any child who has spent weeks or months being pointed at. Last Christmas, I saw Santa Claus, a patch over his eye, leading a troop of nine cross-eyed children up to a tree set up in an orthoptic clinic. There he stopped, pulled off his patch and hung it on a branch. The youngsters followed his example. I have never attended a happier party. The departure of the patch represents real progress, a sort of halfway point in the cure.

In the majority of cases, surgery remains a required method of treatment. This surgery, as safe as an operation for adenoids, has heretofore been successful in about half the cases where it was tried. In the others, eyes reverted to their cocked position, and the operation had to be repeated. It has been done ten times to a single eye without permanent success. Today, however, surgery is greatly aided by orthoptics. The surgeon employs the orthoptic machine to measure the deviation of the eyes, and the knowledge gained guides his hand on the operating table. Exercise given before and after the operation vastly increases the number of cures following surgery.

Far better, of course, than all the methods of cure are the steps parents can take to prevent cross-eye in children. The time for the parents to be on guard is when the child falls ill, for it is after scarlet fever, whooping cough, chicken pox, measles *et al.* that the defect makes its appearance. There may even be a direct connection between these children's diseases and cross-eye, but there are few facts to support this belief.

What seems more likely is that the bedridden youngster is given books to read, beads to string, and the eyestrain coming during a period of lowered vitality produces the muscular imbalance of the eyes. When the child is sick, take time off to play phonograph records, tell stories, stand on *(Continued on page 344)*

Deadly Disease

HARDLY A DAY passes that some one doesn't remark, "I suppose one of these days they will find the cure for cancer, won't they?" This opinion is a reasonable reflection of the long standing belief that cancer is a single disease with a single identifiable cause. So many other killers of mankind have proved to be of that type and so splendid has been the record of the medical profession in combating them—to some degree at least—that the wish is father to the thought when one expects cancer to be "true to type." Unfortunately, however, it is far more securely rooted in the very nature of man, than is any germ-borne ailment.

This does not mean that victory over cancer may not eventually be won. In fact, all those persons engaged in attacking it are convinced that it will. They feel, however, with a few notable exceptions, that their individual part in it will be roughly analogous to that of a soldier at the front in modern warfare.

Who won the World War? Was it the British fleet by its blockade? Was it the French army at the Marne? Was it our own troops by timely assistance? Was it improved medical and surgical skill that saved lives with greater success than the world had ever before seen? Who knows? All these factors contributed to the final result. Each of them was essential; yet no one can deny that the victory was a composite of many things, because—and this is important for our comparison—the "enemy" was himself complex and widespread.

In exactly the same way we find that it requires a combination of forces and personnel to make headway against cancer. It is not a job to be tackled by isolated individuals. It has taken some time for this point of view to permeate the groups of persons most interested, but today there are signs of progress all around us.

What are some of these signs? Why should they be given space in a publication like this magazine? What can the reader do about it? What can be expected in the future? These are questions of immediate importance in a country where the annual death toll from cancer approximates 150,000 persons.

There are three broad fields in which progress is being made and on which success depends. The first of these is *research,* the second *treatment* and the third *education.*

In research there are several new methods of attack that give great promise. Among these, one of the most interesting depends on the further development and increased use of the cyclotron, our most powerful and most recent atom smasher, designed by E. O. Lawrence at the University of California. By being able to render radioactive ordinary chemical elements, such as radium or phosphorus, it should be possible to learn a great deal about the activity of normal and cancerous tissue.

The recognition that animals, such as mice and rats, which are especially susceptible to cancer, can be controlled uniformly and can be produced for investigation by tens of thousands, has revolutionized the biologic attack on cancer. This is known as the genetic method. Its largest center is at the Jackson Memorial Laboratory, Bar Harbor, Me.

Studies on the endocrine glands and on the various synthetic substances which increase or hasten the incidence of cancer in animals are also giving important new leads.

Universities throughout the United States are recognizing the growing claims of cancer

Number 3—

By C. Clarence Cook LITTLE

CANCER—*the third ranking "star" in the frequency tables of mortality—is not incurable, as so many persons think. Moreover, science knows many important facts about cancer which, if utilized, could protect man from its ravages.*

research. At Yale a recent munificent donation in memory of Jane Coffin Childs provides a fund which sets the present American standards for privately supported programs of cancer research. Columbia University has its Crocker Fund of long standing for the same purpose. The University of Chicago is coordinating its resources in an attempt to develop greater efficiency in this field. Other institutions are conscious of the increasing pressure of public interest in this direction.

The federal government, by the establishment of a National Cancer Institute, has begun a concerted and comprehensive attack on the problem. The institute's splendid new building at Bethesda, Md., should be the center of much progressive and important work.

Federal and private support should be given liberally to the other established centers of research throughout the country. For if adequate support is provided, we can fairly expect that advances sector by sector in our knowledge of the causes and nature of cancer will be made and consolidated. Over a period of years the various scattered discoveries will be integrated and combined to produce major advances. Increasingly we shall come to recognize the remarkable foresight of Galen who, many centuries ago, pointed out that it is useless to speak of cures until the cause and nature of a disease have been discovered and explained.

As we shall see, much can be done to save lives in the meantime. The final victory will not, however, be won until prevention through a more complete knowledge based on research has replaced our present fragmentary grasp of the situation. *Patience and still more patience with a willingness to cooperate are the keynotes to success in cancer research.*

Diagnosis and treatment of cancer are matters of more than the ordinary amount of difficulty. The problem of diagnosis is to find in its early and localized stages a condition which differs from the normal (1) by the presence of structures or by chemical composition which are only identifiable under a microscope that is manipulated by a skilled and correctly trained pathologist or (2) in most difficult and detailed phases of cell metabolism. Whenever any one is able by gross symptoms to venture a diagnosis of cancer, one may be fairly certain that the prognosis [outlook] is none too good. But it is a safe attitude to assume that many more mistaken diagnoses have been based on incorrect evaluation of superficial symptoms that appear at first glance to be malignant. It is not safe to trust to that type of inspection to determine whether or not cancer is present.

There are two types of tragic superficialities that one meets all too frequently in studying the diagnosis of cancer. One is the case in which an evil-looking surface condition presents itself, and the diagnosis of cancer glibly given results in a radical operation or treat-

There are nine causes of death which outrank all other killers in the tables of mortality; in fact, three out of every four persons die of one of these nine causes. This series of articles takes up each disease separately and explains why it is so fatal to the human race.

ment by irradiation [x-rays or radium]. Many times this happens when the condition is not really cancer and when successful treatment of a much less radical or serious nature might have been recommended. The second is much more tragic. It involves those cases where women especially have reported for diagnosis a small, painless lump, usually on the breast, or an irregular vaginal discharge and have been sent home with a bluff and embarrassing statement that they are overcautious, timid and neurotic, together with advice not to worry. They have followed this advice literally with the result that a year or two later they have had to appeal again for advice and help, only to find that an incurable cancer had developed on the very site of the early symptom that they had previously reported.

Because these things are avoidable, it has seemed necessary to conduct a campaign of stimulative information among members of the medical profession. When this was started ten years ago, it was amazing to find how prevalent was the attitude of pessimism concerning cancer. The general practitioner saw, on the average, only two or three cases of cancer each year, and these were so advanced that the prospect of curing them was slight. It was necessary to convince him of two things. First was the fact that early cancer was curable. Second, he needed to realize that the diagnosis of cancer requires the service of a pathologist and that the choice of its proper treatment often needs group judgment of internists [specialists in internal diseases], radiologists and surgeons.

This education has been largely accomplished through the efforts of three national organizations: the American College of Surgeons, the American Society for the Control of Cancer and the American Medical Association.

The American College of Surgeons has assumed the responsibility of two great efforts in cancer control. It has, through its committee on malignancy, collected records of almost 30,000 cases where cancer has remained entirely absent by five or more years following treatment. By correlating the stage of the disease at treatment with the final outcome of the case, it has shown that Delay and Death are nearly synonymous in this disease.

It has also encouraged at suitable centers of population the establishment and development of diagnostic and treatment clinics so that the increase in these institutions has been both amazing and encouraging in the highest degree. A few years ago there were only a double handful of such clinics. Today there are more than 300. The College of Surgeons inspects and approves those which are up to the standards of a well rounded center for all the phases of diagnosis and for the different types of treatment.

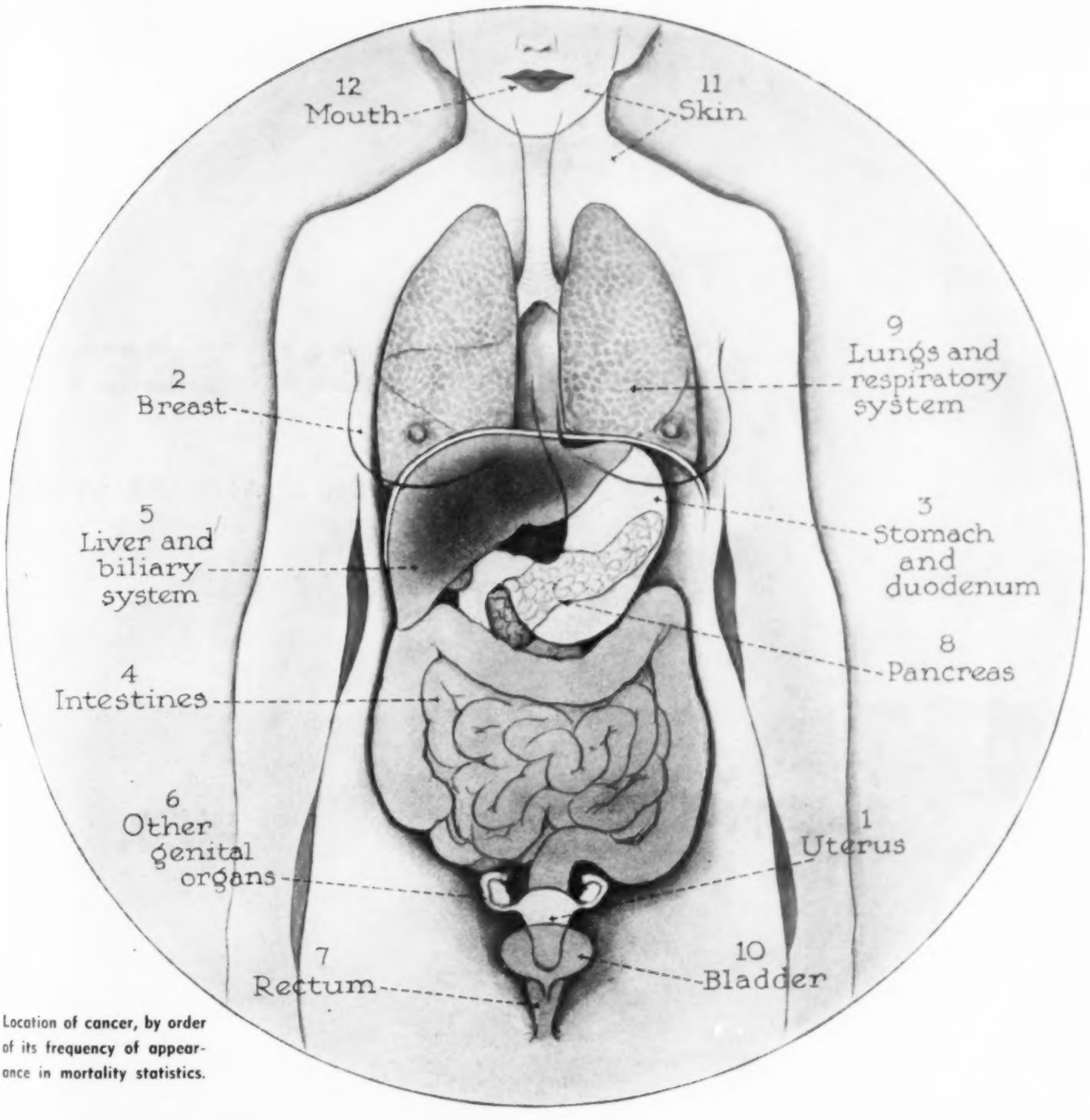
The American Medical Association through its state societies has provided the organized framework that produces natural groups of the profession ready for instruction. It has given further valuable space for cancer exhibits at its national and state meetings. Perhaps of greater value than all, it has uniformly adopted an understanding, sympathetic and cooperative attitude toward the efforts of the American Society for the Control of Cancer. This moral support by an old and respected organization has been of inestimable assistance.

The treatment of cancer has developed greatly in the past few years. A natural but paralyzing rivalry between surgery and radiology has yielded to an extremely intelligent combination of the two methods. Today, we find certain cases of cancer that are best attacked by surgery alone. Others are most successfully cured by irradiation. Still others require a combination of the two types of therapy.

There is, however, one ghastly and tragic menace in the background of the whole field of cancer treatment. This is quackery. In no other sector of medicine has this black art been developed to such a high degree of plausible treachery.

Each year thousands of lives are needlessly lost and hundreds of thousands of dollars are wasted, because there are unscrupulous individuals who capitalize on the natural desire of ignorant persons to avoid surgical treatment or costly irradiation. Testimonials based on cases of "cured" surface conditions, that had been wrongly called cancer, are preserved and utilized skilfully. Often results of a superficially spectacular nature are obtained. These reports bring to the quack bona fide cases of cancer which are treated and which eventually travel the road to death. These cases, however, are not advertised. By selective publicizing of successful instances, the impression is quickly spread that cancer has been cured. As a result, the bewildered and credulous thousands who believe all they read continue to fatten the bank accounts of the quacks. Only an informed, courageous and intelligent public with something of the attitude of the vigilantes of old can run these "confidence men" out of existence.

It is wise to remember that today there are only three methods of cancer treatment



Location of cancer, by order of its frequency of appearance in mortality statistics.

approved by the medical profession, namely, surgery, the x-rays and radium or a combination of them.

On the educational "front" there have occurred some of the most significant and important developments.

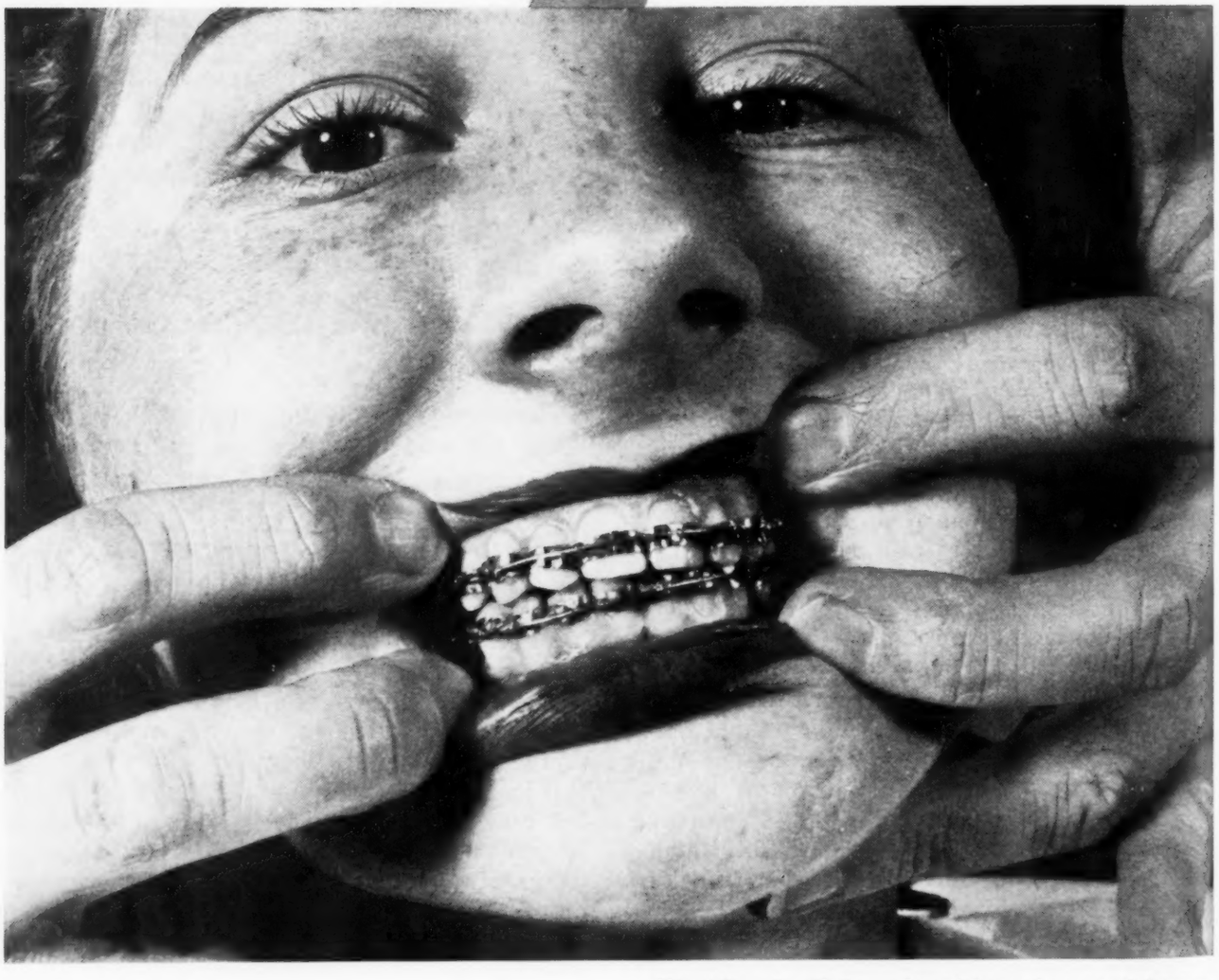
These have followed the recognition of the fact that cancer presented certain unique features which set it apart from many of the other enemies of our health, such as pneumonia, tuberculosis or syphilis. The symptoms of these diseases are such as to enable them to be recognized not only by the patient himself but often by his family and friends.

In many types of cancer this is not the case. The early symptoms of cancer of the breast and of cancer of the uterus are so intimate in nature that only the patient herself can notice them and report them for diagnosis. When one realizes that these two types of the disease kill more than 30,000 women each year in the United States and that early diagnosis and prompt adequate treatment could save perhaps 24,000 of them, the urgency of the situation is self evident.

It is, of course, true that cancer of the stomach and of the intestines is perhaps the most serious menace of all. It is also true that these forms of the disease affect men as often or more frequently than they do women. Since, however, the accessibility of the stomach and intestine is much less *(Continued on page 355)*

When Is the Time to STRAIGHTEN TEETH?

By ***DON CHALMERS LYONS***



This girl's smile will show a beautiful row of even teeth later on.

Photos, Milwaukee Journal

Continual pressure on the teeth or jaw may bring about facial deformity and prevent normal eruption of the second set of teeth.

AT NO TIME in the world's history have parents been as conscious of the value of beautiful teeth for their children as they are today, for perhaps their little Junior or his sister may be a future motion picture star. Well known is the value of perfect enunciation in radio work and the part teeth play in clear speech; then, too, there is television to be considered.

A recent analysis of the questions asked by parents of their family dentist revealed that one of their most common queries was, "When is the best time to start having Junior's teeth straightened?"

There is considerable responsibility involved in determining whether or not orthodontic treatment, or the straightening of the teeth, should be undertaken and when it should be started. In general, crooked teeth which are considered by the dentist as interfering with proper mastication are divided into three groups, and the time allowed for correction

depends or varies according to these three divisions.

In the first group the narrowed arch and high palate or roof of the mouth is most pronounced. In other words, the jaws lack normal lateral or side development. Adenoids and other nasal or throat conditions are most often found with this type of malocclusion [interference]of the teeth. The teeth may be brought into normal position by appliances which cause a gradual normal expansion of the arch over a period of time. This period depends on the person's rapidity of growth. The treatment is usually started while the temporary or deciduous cuspids and molars are in place, providing these teeth still have fully developed roots as determined by an x-ray examination. If the child does not receive attention until the roots of these teeth have started to reabsorb, then the straightening, or orthodontic assistance as it should be called, should be delayed until the permanent bicuspids are fully erupted.

If there is a space between the central incisor teeth, the separation should be treated as soon as the lateral incisors erupt. In such a case, it may be unnecessary to resort to surgery to remove the septum [or dividing tissue]. If it is removed before straightening appliances are used, scar tissue may form a tough fibrous band which will prevent a good final result.

The deep overbite should not be treated until the bicuspid teeth have erupted, because many of these cases actually correct themselves when the child reaches the age of 12 or 14 years, at which time a period of rapid vertical growth takes place in the facial bones which brings about normal relationships.

In the second group of cases, the lower jaw usually lags behind the upper jaw in growth, and a receding chin of the Andy Gump type results. The question which must be determined in such children is whether the receding chin is due to a lack of facial development as a whole or to an underdeveloped mandible [lower jaw bone]. If it is the latter, the cases should be treated early in life—at the age of 6 or 7 years, if possible. If there is no change needed to speed up facial growth, treatment is usually delayed until the permanent bicuspid teeth have taken their place in the mouth.

Crooked teeth are in many instances caused by lip habits, that is, the habit of biting the lower lip with the upper teeth, or permitting the lower lip to lay under and behind the upper incisors. Treatment for these children should start early enough to give nature a chance to develop the lip muscles to their normal tone or elasticity and shape.

The earliest possible assistance is needed, even at 4 or 5 years of age, in cases falling in group three, mainly because these are associated with the greatest degree of deformity of the face. The commonest abnormality is the open bite. In such cases, the child has considerable difficulty in closing the lips normally and may not be able to shut them at all. This type of deformity often is complicated by a tongue habit. Unconsciously the tongue is placed against the upper front teeth during the swallowing of food or consciously at other times as a habit. Considerable pressure is exerted, and this in turn prevents normal eruption and the falling into position of these teeth. The orthodontist likes to see these cases while the child is young and actively growing. Cases caused by finger sucking come under the same grouping.

The cross bite, as it is called, is another condition which demands early treatment or orthodontic assistance. In this type of case, the teeth of one portion of the upper jaw will bite inside the lower jaw, or a single tooth may be involved. Unless treatment starts in time, a noticeable facial and lip deformity develops.

Early loss of the first teeth is a common cause of deformities in occlusion [the contact of the teeth of both jaws], and the spaces which they leave should be retained by the proper appliances, called space retainers or maintainers. These are necessary to assist natural growth of the area involved. Third molars also cause trouble. They may ruin the appearance of a lovely set of teeth in a short time, as they crowd the teeth forward in their effort to erupt. If there is a tendency for the impaction of these teeth [imbedding in the jaw] as revealed by an x-ray study shortly after the age of 15 years, what might well be called a prophylactic extraction is often advised. In some instances where the child is under orthodontic care, the retaining brace, which holds the teeth in position after the treatment is completed until they have firmly established themselves in their new positions, is left in position until all danger is past.

The correct time for straightening teeth must of course vary with the individual child. That is a factor which the family dentist must determine; or which the specialist in this art must consider; but in general, parents may thus be guided as to the time when their Johnny or Susy should make their initial visit to the dentist.

DIET and HEART DISEASE

By LOUIS FAUGERES BISHOP JR. and RUTH V. BENNETT

Shakespeare divided life into 7 ages: first, the infant.

And then the whining school boy creeping off to school.

The lover next, sighing like a furnace, with woful ballad.

Then a soldier, full of strange oaths and bearded like a pard.

YOU who hope for some blanket rule for diet in heart disease, or you who substitute concentrated vitamins for victuals, are doomed to disappointment. For common sense is the only rule to apply to diet in heart disease as well as anywhere else. Food fads may lead to fame for those who create them but are not satisfactory cures for heart disease.

Centuries ago Shakespeare described in "As You Like It" the seven ages of man. His astute observation of man in the different periods of life may well serve as a pattern for a discussion on diet in heart disease. Shakespeare was ahead of his time, or else we do not change as much as we like to think.

All the world's a stage,
And all the men and women merely players.
They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages. At first the infant,
Mewling and puking in the nurse's arms.
And then the whining school-boy, with his satchel
And shining morning face, creeping like snail
Unwillingly to school. And then the lover,
Sighing like furnace, with a woful ballad
Made to his mistress' eyebrow. Then a soldier,
Full of strange oaths and bearded like the pard;
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon's mouth. And then the justice,
In fair round belly with good capon lined,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances;
And so he plays his part. The sixth age shifts
Into the lean and slipper'd pantaloon,
With spectacles on nose and pouch on side;
His youthful hose, well saved, a world too wide
For his shrunk shank; and his big manly voice,
Turning again toward childish treble, pipes
And whistles in his sound. Last scene of all,
That ends this strange eventful history,
Is second childishness and mere oblivion,
Sans teeth, sands eyes, sans taste, sans everything.

The first of these seven ages is "the infant, mewling and puking in his nurse's arms." Suppose this infant has congenital heart disease, that is, he was born with it; what shall we choose for a diet to help our modern child develop in the "first seven ages of man"? The same diet should be chosen as would be indicated if the child were afflicted with tubercu-

Then the justice, full of wise saws and modern instances.

The sixth age shifts into the lean and slipper'd "pantaloon."

Last scene of all is second childishness, sans everything.

Many a girl in her early twenties who has heart disease may desire to marry, have a home and children. Mark for her a clear road to health via sane diet and sane living.

losis; a diet to build up his resistance to infection and to nourish his tissues as he grows.

Then, in the second age—following the poet—comes our "school-boy, with his satchel and shining morning face, creeping like snail unwillingly to school," and he may indeed "creep" to school if he has rheumatic heart disease. And it may not be wise for him to carry too heavy a "satchel," and in addition, he will not have "a shining morning face" unless he is properly nourished. So you should see that he has a nourishing breakfast, with plenty of time to prepare for his day at school. You should make sure that he has a well balanced lunch, consisting in part of fruit, vegetables and milk, to sustain him should he flag from weariness, for he is handicapped by his defective heart. He is also prone to colds and infections by reason of his damaged heart. He needs your thoughtful care, not coddling, to build up a healthy body as he matures.

Next comes the third age of the poet's world of men and women, "The lover, sighing like a furnace," as he enters the twenties from the adolescent teens. At times he may sigh not only from love but really from lack of breath, because he may have heart disease. Suppose he has had rheumatic heart disease, rheumatic fever as a school boy, and now he feels the effect of a narrowing or "tucking" of his mitral valve due to the scar of that early rheumatic fever which inflamed his heart. Yet he wants not only to marry but to be *fit* to marry. So he, too, must have a well balanced diet to give him strength to win his girl and make a home for her.

At this third age, the early twenties, many a girl who has heart disease may desire to marry, have a home and children. And she should! If you have such a girl, be sure to nourish her well through this period. Mark for her a clear road to health via sane diet, outdoor exercise with plenty of air and sunshine.

Next comes the fourth age of life—from about 20 to 30 years of age—the "soldier . . . seeking the bubble reputation even in the cannon's mouth," and the world again is full of soldiers! On the average, soldiers may need more calories than ordinary youth; but in the last World War many soldiers were found to be suffering from functional heart disease. They called it "circulatory asthenia"; the world today calls it the type "who can't take it." Close examination reveals that such a lad may have a sensitive nervous system and cannot withstand the repeated impact of gunfire; his heart will not shape up to average. He may be turned down if drafted or be on sick leave much of the time. Still he does not have congenital heart disease, nor has he the rheumatic fever type of heart disease; but he needs care and nourishing food. He also may be making his own living as best he can with a handicapped heart. Or he may be in the "Army of the Unemployed." At this age, usually excess fat has not come into the picture, so our diet rules remain much the same as for the infant, the schoolboy or the adolescent.

Another factor to be considered in the life of a soldier, or other young man, is whether his heart ailment may be complicated by syphilis. He may sew the seeds of future heart disease, for syphilis, if untreated at this age, often causes heart disease at 50. It lies in wait for him like a time bomb. Now his diet must still be along the line of resistance, bent toward keeping ahead of his syphilitic infection, for such heart disease leads to lassitude and loss of appetite. Therefore, see that he has a yearly blood test, with treatment when necessary, aided by sustaining food, exercise and a sane point of view—the weapons of any soldier.

When we come to the fifth stage of man and read about Shakespeare's "justice, in fair round belly, with good capon lined," we must indeed be speaking in the language of the present. How often do we see at 40 or 50 the "justice" (or the lawyer, the business man, the executive, the professional man) with a protruding stomach which he loves to fill with not only capon but the generous calories of alcohol as well. Such a man, if unmindful of stressful living, may well be a candidate for coronary heart disease. Just the other day such a man regretted what he called "the break in his heart" (coronary thrombosis). And it is indeed a "heart-break" to see such citizens cut off or placed "on the shelf" in their prime of life. Such a man may have a rising blood pressure and weight, and at first he notices only a pain around his heart that comes and goes. Or he may have difficulty in breathing after a speech at a banquet (postprandial pain), when climbing up stairs or after finishing the eighteenth hole of a golf game. He had better cut his calories, rather than cut his corners by too fast driving of cars in a mad dash to catch the plane for the coast or rather than become too concentrated on leaving a fortune to his family. All wives can aid in the diet situation. But don't be like the wife in the cartoon; her husband looked so lean and hungry that his friend remarked: "You've been losing weight, haven't you, Doug?" who answered, "Yeah, my wife's on a diet."

In general, if fat and 40, rely on your doctor to suggest a diet limiting your calories as much as necessary but still furnishing a well rounded menu. One man, for instance, has had singular success, as he says, by "shaking my head right and left instead of up and down." By giving up the second helping and desserts, he has lost 20 pounds in two months, and he feels better in every way. You can do it, too, if you try. Keep account of your calories for a week. And get the habit of watching your intake. Your reward will be fewer pounds on your body and more years to live. Chew fresh vegetables, and eschew desserts, and always take the advice of the food faddists with "a grain of salt." When you say, "Let them eat cake!" be sure you mean it—and leave it for the children.

When one is 40 one seems to have a natural affinity for fat, so one *(Continued on page 359)*

Dr. Crawford Long, whose "mystifying" experience with ether led him to its use later in an operation. But not even then did he realize the portent of his discovery.

Conquerors

WE LIVE in an era in which the unusual has become commonplace. Electricity, automobiles, radio and the airplane are harnessed to the will of contemporary man, and in these fields America has demonstrated her talents to a mechanistic world. Yet, anesthesia may perhaps be regarded as America's greatest gift to the world. Pain is perennial and has afflicted man from the earliest times. To liberate mankind from pain, Americans gave the world the three general anesthetics most frequently employed today: ether, nitrous oxide and ethylene. Although this boon could have been picked up by any one, as a matter of fact not one of the pioneer discoverers of anesthesia was already famous when the discovery was made.

On the trail of the discovery of anesthesia strode tragedy, suicide, scandal, greed and law suits. Of the four principal claimants of priority, Long died in obscurity, Wells died by his own hand in jail, Morton perished penniless and Jackson succumbed in a lunatic asylum. On the question of priority, the best summary is that of Oliver Wendell Holmes. When asked to whom the credit belongs, he answered, "To e(i)ther."

While all those who were primarily associated with the discovery of anesthesia were swept to a tragic doom, anesthesia itself, indifferent to the fate of the discoverers, advanced to increasing perfection. Today surgeons have at their disposal anesthetics which permit them, undisturbed and unhurried, to perform operations which some sixty years ago would have seemed impossible. Today the scalpel can find its way to every part of the human body. The road has been blazed by anesthesia.

I. The Discovery of Ether

Dr. Crawford Long cautiously removes his great coat. He feels a sharp spasm of pain shoot through his right shoulder. "Drat," he exclaims, "that is something new." He removes his jacket with studied care and places it on a chair. Next follow his shirt and undergarment, until his chest and arms

# of Pain

By NOAH FABRICANT and LEO ZIMMERMAN

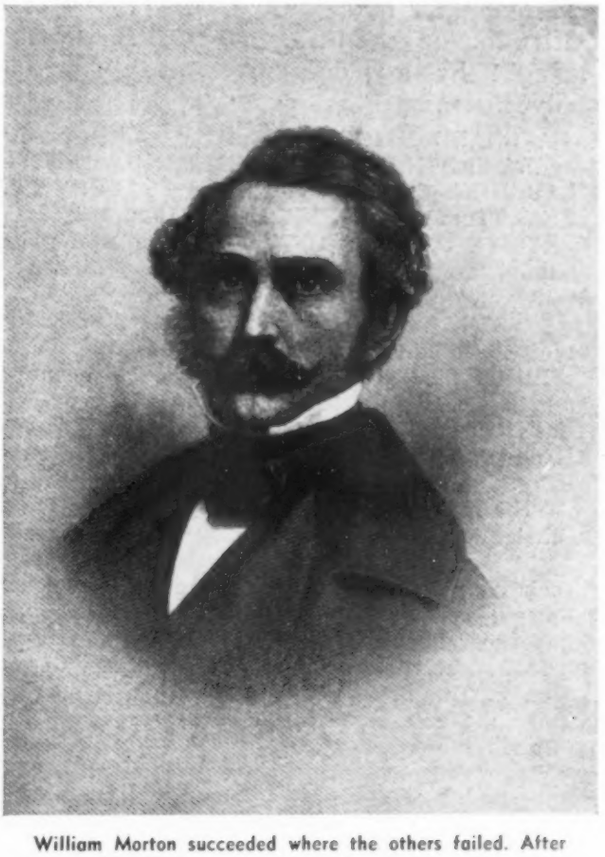
are completely exposed. Each movement of his body generates a flow of painful aches and hurts. He scrutinizes the welts on his forearms, the bruises on his shoulder and the red smear of dried blood on his chest. Strange, he thinks, that he was not conscious of pain until but a few moments before. That he had pain now, he knew. That he had sustained pain sufficient to bruise and welt his body was also quite evident.

His thoughts run back to the events that took place several hours before at the academy. He had joined a number of intimate friends for a sociable evening. An "ether frolic," he believed it was called. Conversation was high spirited, laughter unrestrained. Some one, he did not recall who it was, produced a towel and poured some stuff called ether on it to the saturation point. Then, at a given signal, several of his friends pinioned his arms, while another forcibly applied the towel to his nose. He recalled a scuffle and a gradual loss of consciousness. When he revived, he regarded the incident as a huge joke. He joined in the frivolity when the same procedure was applied to latecomers. "But," he rubs his chin thoughtfully, "there was no pain. And now it has suddenly come on me."

A week later Long's bruises faded away, and without further discomfiture he resumed the arduous duties of his country practice in the rural districts of Georgia. Nevertheless, his experience, mystifying though it was, led Long to conceive the idea of using ether to prevent the pain of surgical operations.

One evening his door bell rings. He admits James Venable, an acquaintance who has inhaled ether at the "frolic." Venable has declared under oath that he is very fond of its use. Venable has a tumor on the back of his neck and wants Long to cut it off. The operation had been postponed from time to time, but now Venable is growing impatient. He wants the tumor removed. Long pours some ether on a towel and holds the towel to the patient's nose and mouth. When he is sufficiently etherized, Long pricks him with a pin. There is no outcry. Long operates, and

Dr. Horace Wells, a dentist, finds the anesthetic properties of "laughing gas" but fails in his demonstration of it before the medical men of Massachusetts General Hospital.



William Morton succeeded where the others failed. After his perfect demonstration of ether at an operation, the surgeon exclaimed, "Gentlemen, this is no humbug!"

when Venable awakens he does not believe that the tumor has been removed until the tumor has been shown to him.

That night Long wrote in his ledger:

	James Venable	
1842	to Dr. C. W. Long, *Dr.*	
Jan. 28	Sulphuric ether.....	$ .25
Mch. 30	Sulphuric ether and exsecting tumor.....	2.00
May 13	Sul. ether.....	.25
June 6	Exsecting tumor.....	2.00
		$4.50

Long goes to bed that night without knowing that there is anything remarkable in his ledger. He uses ether on a few other occasions, but never in a major operation. He does not concern himself with the principles of anesthesia. He does not write of his experiences. The subject he has learned in jest he abandons without further thought. Unwittingly he has been a pioneer. History rescues Long from an obscure fate.

2. *The Discovery of Nitrous Oxide*

In the half gloom of a dusty dental office soberly filled with the equipment of his profession, a young man, lean faced and firm jawed, sits reading. His dark intelligent eyes rapidly scan the columns of a newspaper. He pauses unsmilingly over the dispatch from Philadelphia and, with a frown, diverts his attention to an inside page. His eyes are caught by a large, prominently displayed advertisement:

A GRAND EXHIBITION of the effects produced by inhaling NITROUS OXIDE, EXHILARATING or LAUGHING GAS ! will be given at UNION HALL, THIS (Tuesday) EVENING, Dec. 10th, 1844.

FORTY GALLONS OF GAS will be prepared and administered to all in the audience who desire to inhale it.

TWELVE YOUNG MEN have volunteered to inhale the Gas, to commence the entertainment.

EIGHT STRONG MEN are engaged to occupy the front seats, to protect those under the influence of the Gas from injuring themselves or others. This course is adopted that no apprehension of danger may be entertained. Probably no one will attempt to fight.

THE EFFECT of the GAS is to make those who inhale it either Laugh, Sing, Dance, Speak or Fight &c., &c., according to the leading trait of their character. They seem to retain consciousness enough not to say or do that which they would have occasion to regret.

N.B. The Gas will be administered only to gentlemen of the first respectability. The object is to make the entertainment in every respect a genteel affair.

Entertainment to commence at 7 o'clock. Tickets 25 cents—for sale at the principal Bookstores and at the Door.

Lectures are a popular form of entertainment in the Hartford, Conn., of the 1840's, and that evening Dr. Horace Wells, accompanied by a friend, enters a crowded and poorly ventilated lecture amphitheater at Union Hall. It is filled with smoke and expectant, high strung chatter. Some moments later the sonorous hum fades into a tomblike silence as the lecturer, G. Q. Colton, raises his arms. He is a master showman, his voice commanding the attention of his audience with a description of the amazing effects of the new chemical discovery, nitrous oxide. "And now," he interjects, "I would like a volunteer from the audience."

"I'm ready," cries the friend of Dr. Wells, walking rapidly toward the speaker's rostrum. At the administration of the nitrous oxide a hush spreads oppressively over the wide-eyed and inspired spectators. The volunteer inhales the fumes of the gas, gasps, struggles faintly and miraculously relaxes. A half minute passes, a minute—and then he jumps from the stage and staggers pugnaciously toward the front row. A "strong man" grapples with the volunteer and is thrown aside. The volunteer attempts a jump over the back of a bench, catches his leg and falls to the floor. Sobered by the mishap, he shamefacedly makes his way back to the seat beside Wells.

As the lecture continues, Wells glances at the floor. "Why, your leg is bleeding," he exclaims. "Look!" The friend tugs at his trouser and reveals an angry, bleeding gash.

"I didn't know it," he says slowly.

"When you fell," asks Wells, "was there no pain?"

"No, there was no pain."

"Are you sure there was no pain?"

"I'm positive I felt nothing," comes the puzzled reply.

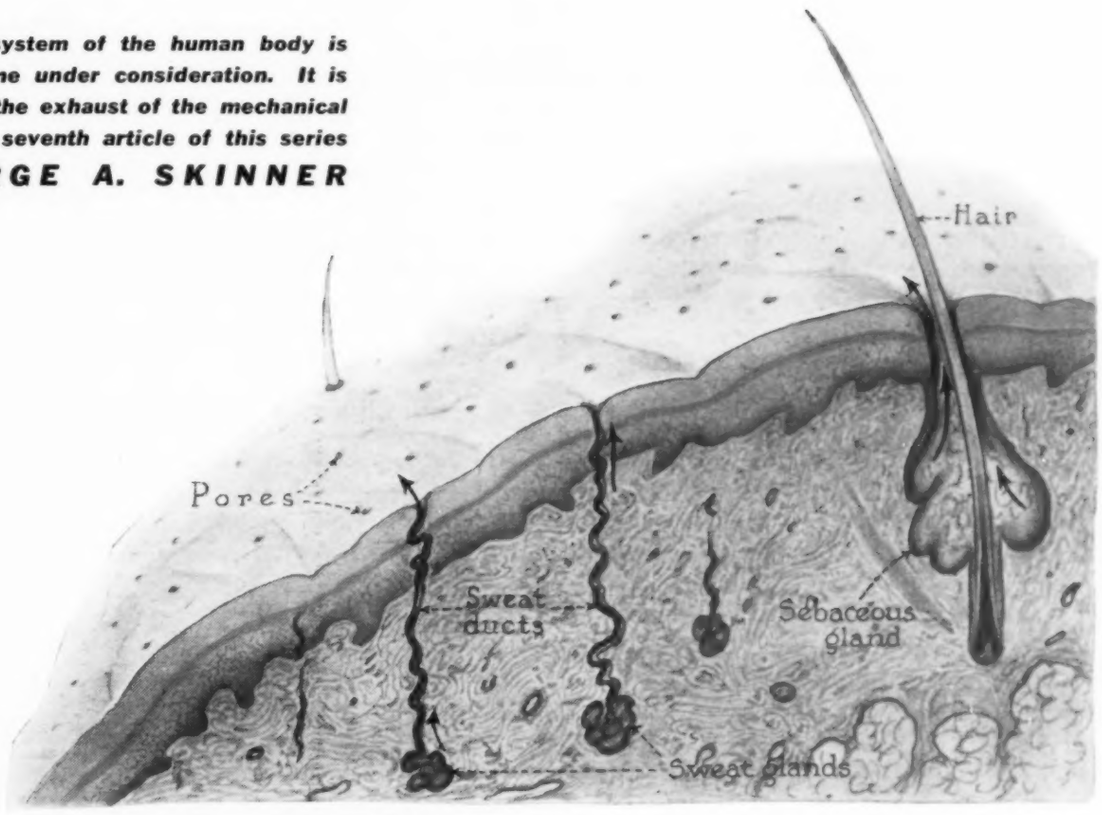
That night Wells cannot sleep. The experience of his friend perplexes him. Wells tries to explain to himself the reason for the absence of pain. He wonders whether the experience can be repeated. He resolves to experiment on himself. The next day he prepares a bag of nitrous oxide. He asks Colton to administer the gas, and while Wells is under its influence, he has one of his own teeth extracted. "There is absolutely no pain," he exclaims on regaining consciousness.

Convinced that he has arrived at a long sought goal, several weeks later Wells goes to Boston. He offers to exhibit the properties of nitrous oxide for dental extraction before the learned medical men of the Massachusetts General Hospital. Because he does not understand the proper administration of the gas—probably because he *(Continued on page 366)*

Wonder Stories of the Human Machine

The excretory system of the human body is the next to come under consideration. It is compared with the exhaust of the mechanical machine in the seventh article of this series

By GEORGE A. SKINNER



IN the early days of the automobile the smoky exhaust caused much comment from the men who still favored the horse and buggy. People feared its effects on the travelers on city streets, but studies showed that it was not the smoke that was dangerous but the poisonous carbon monoxide it contained. These poisonous fumes are still a real menace to the motorist.

In all processes there is some waste. In many cases one of the most serious problems of the manufacturer of a commodity is the proper disposal of waste. Most wastes were formerly dumped in some neighboring river or lake. But as population grew, such products became not only nuisances but destructive to river vegetation and fish life. As a result, chemists showed how to transform much waste into products as valuable as the original materials.

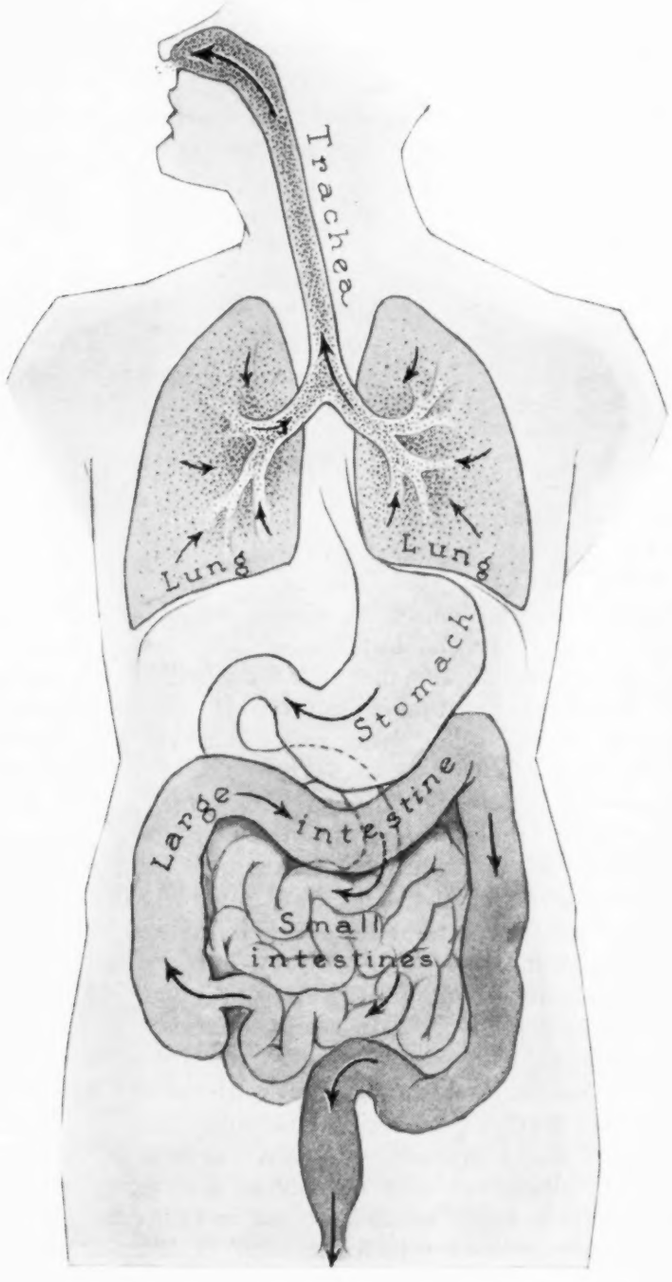
The human machine is efficient, but there are a number of waste products that have always been one of the greatest problems of living. Our automobiles waste some gasoline in turning it into power; water is thrown off in the exhaust; oil leaks and is burned to a gas, and all these products or wastes are passed into the atmosphere or dropped along the road. Ordinarily the exhaust gases are so quickly diluted by normal diffusion that they never reach a sufficient concentration in open spaces to do damage. In closed places a poisonous concentration is quickly reached. Therefore, we have serious problems of exhaust or waste disposal both from the automobile and the human machine.

There are several kinds of exhaust and sources of elimination in the human machine. The waste material from the intestines is usually regarded as the chief source of unwanted materials, but a large amount also passes off via the kidneys, skin and lungs. The intestinal and liquid wastes cause most of our troubles, although the disposal of the wastes from the skin are a problem, and sometimes lung exhausts are the source of much danger to our existence. This we observe when colds or influenza cause much coughing and sneezing. Sometimes the exhaust from sneezing is power-

ful enough to project infective material many feet.

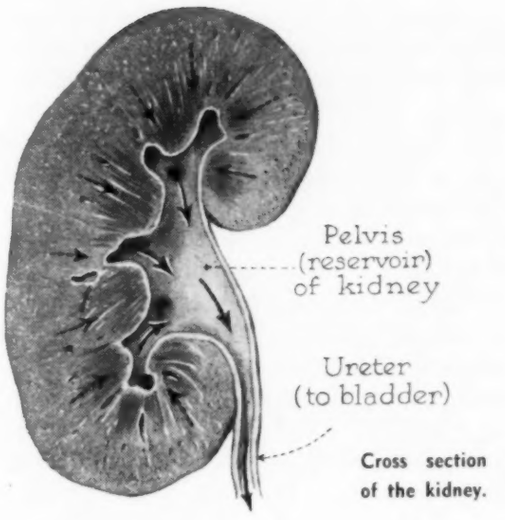
Even if it were possible, it would not be desirable to reduce human wastes, as in the complicated chemistry of the human machine destructive processes would at once be set up.

In our study of the fuel system [February HYGEIA, page 140] we found that the machine absorbed most of the fuel and transformed it into energy; but there were some wastes which the body could not use, so these were passed on to accumulate in the lower end of the fuel line, there to be disposed of when convenient. This fuel line is the intestinal tract, and at present we are concerned only with the storage space at the lower end of the tube. This is an expanded, saclike tube, the rectum, capable of considerable distention as it is not only elastic but has many folds which may open out somewhat like the bellows of a camera. When the sac begins to fill and distend, the fact is communicated to the consciousness through the electric or nervous system. Then the accumulated wastes are discharged from the machine. This waste consists of the fibrous parts of food and occasionally particles that are improperly digested, such as seeds, inorganic materials and pieces of bones. Sometimes children swallow the most astonishing assortment of things which appear in this waste. One often wonders how such objects manage to pass through the fuel line without blocking it or penetrating the walls; but the human machine has a remarkable way of protecting itself.



EXCRETORY SYSTEM

There are several kinds of exhaust and sources of elimination in the human machine. The waste material from the intestines is usually regarded as the chief source of unwanted materials, but a large amount also passes off by way of the lungs, skin and kidneys.



Cross section of the kidney.

If the body wastes mentioned were the only materials, there would still be a considerable nuisance in their disposal, though practically no dangers. The problem, however, is not so simple. In this waste mass are found a great assortment of disease-bearing germs, worm eggs and living worms, many of them capable of producing great damage or death to the person carrying them. Many are exceedingly resistant to destructive influences and may survive in latent form for years. It is due to this fact that the disposal of human wastes is so difficult and complicated.

In the liquid parts of the exhaust, called urine, the surplus liquids which are no longer necessary in the economy of the machine carry a considerable amount of chemicals in solution. The urinary system (kidneys, ureters, bladder and urethra) is indeed wonderful. Under the lower ribs at the back are the kidneys, one lying on each side of the spinal column. They are not large, usually considerably smaller than the fist of the owner. The familiar kidney bean gives one a good idea of their shape. But in this small space are collected miles of tiny tubes arranged in loops and balls, where the liquid is filtered from the blood. But much of it is filtered back again, only the parts not of use to the body being separated and rejected. There are certain chemicals formed in the body during its complicated chemistry that are poisonous to it and hence must be discarded. This wonderful filter and laboratory combined, for such is the kidney, extracts the harmful chemicals from the filtered material and discharges them to the bladder. The average person thus disposes of about three to four pints of liquid daily.

Urine is collected in the bladder, another elastic sac, where the liquids are retained until one is notified that they should be removed. The urine would not be much of a problem in itself, although it does decompose easily, but at times it carries many dangerous germs, sometimes worms, worm eggs and various low life forms.

While we do not usually think of the lungs as organs of waste disposal, there is a constant loss of fluid from the body easily visualized on any cold morning by the "frosty" breath. With the moisture certain gases are also expelled; of those taken in constantly by breathing, oxygen is largely absorbed by the body. The returned gas contains carbon dioxide (carbonic acid gas), nitrogen and some organic material from respiratory tract. When these wastes accumulate too densely in a room a "close" sensation is produced, while this may be uncomfortable, it is not actually harmful. It is the other exhausts mentioned, sneezing and coughing, which project millions of harmful germs into the air that may cause danger from the respiratory system's exhaust.

Another source of elimination is the skin. This does not seem like an organ of the body to most persons; yet it is an important one, and we cannot live long if any great part of it is destroyed. We are all conscious of some of its activities in the form of sweat, and in active exercise the amount of water passed through the skin may be considerable. There are also some chemicals excreted, mostly salt and fatty substances. We may not think that these amount to much; but as the process is continuous, the total material eliminated by this route is large. It is because of this constant disposal of waste taking place through the skin that efforts are required to keep the body clean.

The public is generally unfamiliar with the tremendous problems connected with the disposal of human exhausts. In modern cities it is done so efficiently and unobtrusively that few of the inhabitants know how it is handled or where this enormous mass of material is disposed of. But if we investigate, we will find a most interesting story.

In remote days of the past, when life was largely pastoral and people were not numerous, the disposal of wastes was not a problem. If accumulation occurred, they moved on and let nature dispose of it. But as the population increased and people lived closer together, there began to be some nuisance; then diseases appeared. Waste matter will destroy the life that produces it, if the waste becomes dense enough. This is the result of poisonous materials generated, dangerous products carried or the growth of other life forms therein that are

destructive. Usually all three of these factors are at work.

As cities enlarge, these wastes became so great that the limited extent of the earth could no longer take care of them. People learned early to dispose of wastes by burying them, and where people are scattered this method is satisfactory. But they were in the habit of getting their drinking water from shallow wells, springs or streams, and such water became much contaminated. As wastes increased they were deposited in streets and alleys, leaving nature to remove part of it when rain washed it away, through decomposition and fire. Another danger came with this waste, for it provided food for millions of rats, flies, mosquitoes and cockroaches. Bedbugs, lice and fleas also appeared in enormous numbers. This terrible combination could not be anything but destructive to human life. Consequently, when conditions reached their worst, the great epidemics of the middle ages appeared. Typhoid, dysentery and "summer complaint" killed people in great numbers. These are largely water-borne diseases, and the drinking water was much polluted. Besides this, the swarms of flies everywhere carried filth to human food, even as they do today if we are not watchful, and this spread and intensified the epidemics. Such close contacts made the contagious diseases prevalent, and every winter cases of smallpox, measles, scarlet fever and pneumonia occurred in large numbers.

Until methods of disposal of human exhausts were discovered, cities could not grow large, as epidemics kept the population down; sufficient food and water were almost impossible to obtain, and without abundant water, wastes could not be disposed of. When cities began to use money to buy water supplies and sewage systems, modern city life was made possible.

While all the problems of the exhaust of the human machine have not been solved, many are gone and forgotten, and our modern water supplies, sometimes piped over hundreds of miles, are wonders of engineering skill. In addition to an abundant water supply, we have great purification systems which make water so pure and sparkling that the best springs are left far behind as producers of ideal water.

In modern cities every house is connected to the sewage system or cesspools. It became necessary, however, to provide a more extensive sewer system, and sanitarians, engineers and chemists have joined forces to produce the modern sewage disposal plants. In these the entire sewage of a city is processed, and by the combined action of chemical and biologic processes, the organic matter is largely broken up; most of it passes off as gas, and in many cases the harmless residue becomes a useful fertilizer. Or it may be so changed and diluted that it may safely be returned to a stream. By these methods much of the problem of waste disposal has been solved.

The disposal of the exhaust from the human machine is one of the most important of all the problems of this machine. On this depends much of its ability to keep running. The problems can only be solved in everyday practice by the combined action of all concerned, and on the proper application of facts now known depends much of the success in the operation of these human machines in the future.

NOTE.—This series of articles is being reprinted. The articles will be available separately about three weeks after their appearance in HYGEIA for 15 cents each, postpaid. The entire series will be available in June 1940 in an attractive box file for $1 a set, postpaid.

Next month, Dr. Skinner will consider safety devices of the human machine.

Music Lesson

If she may learn the treasure music stores
In life, of loveliness, and gain the power
To lose the single self in vastness, doors
To strength and poise may open with this hour.

For sometimes hearts must falter, and the calm
Of life be shattered — then blessed is he who knows
Great music as a healing and a balm
For wounds of soul no surgery may close.

—Grace Maddock Miller.

I KNOW you parents have definite ideas about the subjects which should be taught in school! You've told me your ideas, forcibly and clearly. And I agree with you! We don't teach reading, writing and arithmetic as thoroughly as we should. Lots of educators have gone more or less "screwy" over radical procedures. The very fact that some 200 odd subjects are taught in the secondary schools of the United States is proof enough for most of us that something's loose somewhere.

But, if you parents have felt something was wrong with us, we also have complaints.

Health is the most essential thing in life for the vast majority! You send us children to educate who don't have a fair chance at home! Yes, you give them enough to eat—of a kind; the house is warm; they have clothes enough. Many parents, however, do a poor job of health education. Let me, please, mark the Home Health Report Card. These comments are the result of a dozen years' experience in both public and private schools and working with children from all types of homes. The items given are not necessarily in order of importance, but they all are vital in the total picture of building your child into a successful, happy and useful citizen.

The first point is this: Don't let your child come to school when he has a cold, just because you have made plans for something for that day, and you dislike to leave Jimmie or Mary home alone. It will give you an "F"

so far as the school is concerned, if you consider us a hospital ward. Naturally, it isn't fair to other boys and girls. We are told that the common cold is one of man's real liabilities. Rest and a good diet, plus medical attention, are the best things we know. As I see parents permitting children to go out with colds, I often wonder how many ear, sinus and throat troubles and infections of later days will be caused by this thoughtlessness.

This second point will probably surprise you, but as a school man I am much concerned about it. It seems to me that too many parents are allowing their children to sit up too late. There may be a radio program they want to hear! Or they may want to finish a book or magazine! Do you remember how you used to go to bed, and then in a few minutes when the coast seemed clear, you put on a light, dug out some reading material and lay there reading? Children and young folks are still doing it!

More than once, I have asked parents to check this point, and they have found that although Johnny and Betty were going to bed at 8:30 or 9, they were not going to sleep. Many boys and girls have radios in their rooms these days, and they have learned to keep them on softly enough not to be heard downstairs.

A second angle, particularly concerning the adolescent youth, is the parental practice of permitting these young folks to stay up late Friday and Saturday nights. An extra hour or so is all right, but when children 14 to 18 years old are allowed to be up until midnight or after, it has a destructive effect which is not overcome in time for Monday's work.

The third thing is concerned with that group of boys and girls who are overconscientious about their home study. And this is an extremely serious problem! These youths are sincere and honest workers. They are not much interested in sports and clubs. They are academic minded. They go home from school and start boning for the next day's lessons. After supper, they study until bed time. As a school man, trying to see the whole picture, I say to these children, "You ought to get outdoors for play every decent day. Get interested in some hobbies. Come out for the home-room teams, and play soccer, basketball, baseball and tennis. Or go for a bicycle ride, or take a good walk. Health comes first with all sane school men. I'd rather you got a 'B' in Latin and develop into an all round person than have you get an 'A' and be a bookworm." Parents have a real responsibility to see that their children develop all sides.

The fourth item on this Home Health Report Card is for the special consideration of parents who are overambitious for their children. Some parents expect their children to be first in everything. They expect all "A's" on the school report card; they expect Mary to be an accomplished pianist, to take elocution lessons, to be a fancy dancer, fancy skater and artist. They want her to be the leader in the Girl Scouts and church work.

The result is too much strain on the child. The zest and spontaneity of living disappears. Life becomes grim and earnest. Parents ought to be reasonable in the number of "extras" they expect their children to carry.

The Home Health Report Card certainly must be marked on the general attitude of the home. The mental health of a child has a weighty bearing on many aspects of development. If a child is at all sensitive, sharp words of dissension between parents in the morning upset a child for the whole day. If parents are the quick, nervous type, a criticism of the child in the morning may cause not

Although Johnny might have gone to bed at 8:30, he did not go to sleep. He had his radio playing softly and a favorite book.

only a mental storm but a physical upset. One can't digest a breakfast if nerves are taut!

The matter of a too-generous allowance has a far reaching effect on the health of youth. Not only does it mean too many movies in the afternoons, but it means that just before supper, the young folks go into the drug store and fill their stomachs with candy or soft drinks which kill their appetites for wholesome foods an hour later. Parents ought to figure closely the actual needs of children for school lunches, car fares, dues for clubs and such matters.

This next matter applies to adults as well as children. I grow more convinced all the time regarding the value of a good breakfast, eaten without the pressure of time. Many adults get up at the last minute, gulp their orange juice and coffee, swallow whole a slice of toast and scramble off to work. I have discovered that a surprisingly large number of children have the same habit.

The cure, first of all, is to get to bed at an hour which allows a full night's sleep, so one is ready to get up in the morning. Second, it means getting up early enough so one is not rushed beyond reason in dressing and breakfasting. Personally, I have experimented with various time schedules. I know I am more efficient and better balanced by getting up at 6:30, having time to dress leisurely, eat a good breakfast and get off to work at 7:45. I am sure children need a good hearty breakfast and a calm atmosphere in the morning even more than adults. The routine in the morning should establish them for the day, and it ought to include a real meal, not a snack. You as parents will never get a high mark on the Home Health Report Card if your home in the morning resembles a Marx brothers' session at the circus.

I know I have grown increasingly conservative in my educational ideas and practices since I became an administrator! Most of us, I believe, are much more radical in our thinking in the twenties then in the thirties. But every year I become more convinced that growing boys and girls need *(Continued on page 374)*

Strengthening

DURING recent years food faddists have tried to convince consumers that white bread is an inferior and undesirable product. These faddists have pointed out an alleged low mineral content of bread, emphasized vitamin deficiencies, have pointed with horror at the high carbohydrate content and generally created the impression that white bread is a poor food; yet the same faddists favor oranges, which are practically devoid of protein, and meat, which is almost free from carbohydrates, and many others which are equally valuable—but also far from being a complete food. In other words, they attack bread because it is not a complete and perfect food and then advocate the use of other foods which are even less complete and less perfect. The whole answer to this is, of course, that we do not confine our diet to one article of food. We eat a considerable variety, and if a little discretion is exercised in food selection it will be possible to maintain a well balanced diet. In spite of this fact, however, the misconception about bread has become deeply implanted as a widespread idea.

But bakers have in recent years made astonishing progress in improving the nutritive value and completeness of their product. There is no sound reason why bread, any more than any other item, should be a complete food; but since it is a large part of many diets and because its low cost encourages extensive consumption, it appears that improvements in the nutritive value of bread would definitely improve the diet of those who eat it.

In attempting to improve the food value of bread, numerous ingredients, such as synthetic mineral mixtures, fruits and vegetables, have been advocated for inclusion in the baker's formula. Often these so-called improvers were either relatively worthless or of such a nature as to materially change the characteristics of the bread so that it became undesirable to the consumers.

The ingredient which has most definitely improved the nutritive value of bread and stood the test of time has been milk in one form or another. As long ago as 1923, E. V. McCollum of Johns Hopkins University, in an address before the American Bakers Association at French Lick, Ind., said: "It so happens that milk is so constituted as to correct in a very effective manner the dietary deficiencies of the highly milled cereal products which form our bread grain." On another occasion McCollum said: "So far as we know, the simplest, cheapest, and most effective way to improve the quality of bread is to introduce more milk solids not of a fatty nature into its composition."

William N. Happ is quoted in *Bakers Weekly*, Feb. 5, 1927, as follows: "When milk enters the loaf it makes a wonderful difference in the nutritive value. Supplementary proteins are introduced that increase the variety of essential nutrients now known to be so necessary. The vitamins of the milk reinforce those of the flour, and not the least important is the lime [calcium] of the milk which bolsters up the inadequate lime [calcium] content of the flour or even the wheat kernel itself."

With such distinguished nutritionists advocating increased quantities of nonfat milk solids in bread, bakers in recent years have materially increased their usage of these essential ingredients.

Milk is composed of three parts: water, fat and nonfat solids. The water, of course, serves merely as a medium for conveying the other ingredients of the milk and as such has no food value in itself. The butter fat is a desirable and essential food; it not only lends an attractive flavor but also supplies a highly digestible fat and the important fat soluble vitamins. The nonfat solids of milk consist of the lactose, proteins and minerals. Lactose is the only sugar of animal origin, and it provides energy and helps the body to use any calcium that may be present in the diet. The proteins of milk are the body building and body maintaining ingredients. Milk proteins are admitted by all nutritionists to be of the highest quality. Milk is exceptionally rich in minerals, and these are found in the nonfat solids. H. C. Sherman of Columbia University has said that calcium is the element most commonly lacking in American diets. The concentrated nonfat solids of milk are probably our richest natural food source of calcium; therefore, this food is particularly fitted for supplementing calcium deficiencies of other foods.

Obviously, nonfat milk solids should make an excellent addition to bread. The minerals of these solids add important food nutrients to white flour. The proteins of milk are of

the Staff of Life

By L. W. NOLTE

such a nature that they supplement the proteins of wheat and make the combination highly valuable. The lactose of the milk provides energy and improves calcium utilization. Altogether the addition of nonfat milk solids to bread serves greatly to improve the value of the staff of life.

About ten years ago, most bakers felt that addition of nonfat milk solids to bread was not of particular importance. At that time it was considered that 2 or 3 per cent was about all that could be used. However, there were others who determined to study the problem without prejudice, and it was found that extremely desirable results could be obtained by increasing the quantities of nonfat milk solids. These higher levels not only increased the quantity of valuable food incorporated in the bread but also served to give better color and more appetizing flavor, as well as improving other characteristics of the bread, particularly its keeping and toasting quality.

When these facts became known throughout the baking industry, considerable increase in utilization of these milk solids immediately resulted. Nutritionists became aware that this change in bread formulas had not only improved bread physically but most certainly

R. I. Nesmith

The ingredient which has most definitely improved the nutritive value of bread and stood the test of time has been milk. This added factor is responsible for a product superior in both nutrition and appearance.

had improved its food value. Calculation has shown that the addition of 6 per cent nonfat milk solids (6 pounds to every 100 pounds of flour) would increase the calcium content of the bread by nearly 400 per cent. Similar calculations indicated material increases in content of phosphorus and other minerals and approximately 20 per cent increase in proteins. Obviously, such bread was a better food than a bread which did not contain these nonfat milk solids.

At about the time this information became fairly well disseminated thoughout the fields of nutrition and dietetics, attention began to be concentrated on the subject of child nutrition, with particular reference to school lunches. Louise Stanley of the Bureau of Home Economics, U. S. Department of Agriculture, was one of those who felt that definite steps should be taken to increase the value of the foods consumed by school children. Knowing the economy of bread and its universal use, she suggested the manufacture of bread containing 12 per cent nonfat milk solids. This content would provide twice as much nonfat milk solids, if all the liquid used in the bread were milk. Such a bread cannot, of course, be produced by use of fluid milk; but by using dry milk solids—the product resulting from the removal of fat and water from milk—it was easy to incorporate the necessary quantity. Some technical difficulties of production had to be solved, but eventually a bread was developed which was christened "School Lunch Bread," because of the use for which it was originally intended. There was no doubt in the minds of any nutritionists that this loaf had unusual food value; however, there was no definite information as to how much more food value it had than bread containing only 6 per cent nonfat milk solids or bread containing no milk solids whatever.

In order to provide an answer for this question, a research project was conducted at the Animal Nutrition laboratory of the University of Illinois. In this study three types of bread were made in the baking laboratory of the Division of Agriculture Biochemistry of the University of Minnesota. The formula for the bread was as follows:

Flour	100%
Sugar	3%
Diastatic malt extract	1%
Shortening	2%
Milk	2%
Yeast	3%
Dry milk solids (not over 1½% fat)	0, 6%, or 12%

It will be noted that this formula totals more than 100 per cent. However, it is expressed in the language of the baker who always indicates other ingredients as a certain percentage of the quantity of flour used.

This formula was similar in all respects to commercial formulas used in bakeries in all sections of the country. After this bread was baked, all crusts were removed and the interior of the loaves then cut into slices, then dried and ground. The resulting dried bread crumbs were stored in sealed containers and kept under refrigeration until used in the experiment.

The experimental subjects were young albino rats, which had just been weaned. They weighed approximately 50 grams apiece at the beginning of the experiment. The animals were divided into three groups with an attempt made to balance each group in respect to initial weight, sex and breeding. All were young, having just been weaned.

Each animal was confined in an individual cage and fed all it would eat. The diet consisted of bread and water only. Group I was fed bread containing no milk solids. Group II was fed bread containing 6 per cent dry milk solids. Group III was fed bread containing 12 per cent dry milk solids. The experimental animals were fed for seventy-seven days, or through growth and into maturity.

During the seventy-seven day period those animals receiving bread containing no milk solids gained an average of 35.3 grams. Those receiving bread with 6 per cent nonfat milk solids gained 110.1 grams. Those receiving bread containing 12 per cent nonfat milk solids gained 164 grams.

The animals fed on water bread required 25.2 grams of food to gain one gram of weight; with 6 per cent nonfat milk solids in the bread it required only 6.6 grams of food to produce a gram of gain; while with 12 per cent nonfat milk solids, 5.2 grams of bread produced a gain of 1 gram.

It should be particularly emphasized at this point that these gains in weight were made by young growing animals. Among those receiving bread which contained the nonfat milk solids, there was excellent growth and physical condition. The best of these diets was not complete nutritionally, but it produced far better results than the poorest diet, which differed from it only in the quantity of nonfat milk solids present.

When report of this research was first released, many women said: "That's very interesting, but I don't *(Continued on page 373)*

LITTLE INDIANS

The small children of the Indian families living in Minnesota are now being taken under the collective wing of the WPA of that state and are receiving educational and health opportunities which were previously denied them. The 188 little Indians go to six nursery schools under the direction of the WPA at Ponemah, Nett Lake, Grand Portage, White Earth, Onigum and Ponsford, Minnesota. At all these institutions, they are given three meals a day; they are instructed in cleanliness and taught to live and play with children of their own age.

In these photographs, left to right, top to bottom, this little girl demonstrates how they are taught to wash at regular intervals throughout the day and the value of cleanliness in everyday living.

Then, the teacher inspects the children on their arrival at school in the morning. Those who show signs of infection or illness are sent home.

Cod liver oil is a part of each child's daily regimen. It is followed by a hasty glass of orange juice (seen near the bottle in the photograph).

At lunch time, they are given a hot meal to eat and milk to drink. The diet is carefully planned to give the children maximum nutritional value and variety in the selection of food.

You may say, "I can't afford to give up my work and go to bed." The truth is, you can't afford not to, at this time.

A Stitch in Time Saves 99!

I CAME OUT of the doctor's office smiling, proud of the fact that I could muster up a certain bravado. He had just told me that I had tuberculosis. I must give up my work, go to bed and rest. "Who's afraid of the little old bug?" I said defiantly.

But after two years spent in bed, my bravado has fled. To you and the thousands of others like myself who disregard danger signals I say, "You'd *better* be afraid of the little old bug," for once this small germ enters your body, it begins to look like a big bad wolf sinking its fangs into your chest.

It is said that a stitch in time saves nine. In the case of tuberculosis, it saves not nine but ninety-nine. *If the disease is discovered in the early stages, about 99 per cent of the victims will recover.* Early discovery is the best way to help doctors and scientists stamp out the disease. They are putting up a gallant fight to protect our health, and by our stupidity and ignorance we place stumbling blocks in their path every day. In 1938, tuberculosis ranked sixth among all diseases causing death in Illinois, but it is still the leading killer of persons between the ages of 15 and 45. It is all the more tragic that you may spend months mounting into years in a bed fighting a disease which can be prevented from ever occurring. These are the years which should be the happiest and the most productive of your life. Yet in 1938, there were 89,692 beds in sanatoriums and hos-

***A persistent cough, fatigue, loss of weight and chronic indigestion are the beginning symptoms of tuberculosis. Take the first step, or stitch, when these are noticed, and you will live to be thankful says* ATHELENE WATSON**

pitals in the United States filled with tuberculous patients. In spite of the decreasing death rate, 200 persons die daily from the disease. It strikes a telling blow at motherhood, for it is prevalent among young women between the ages of 15 and 30. More men than women die of tuberculosis between the ages of 30 and 45.

The time to think about tuberculosis is *before* you acquire the disease, not after.

Don't dismiss the subject by saying, "We haven't any tuberculosis in our family. I don't even know any one who is infected."

Have you had a tuberculin skin test or an x-ray picture of your chest taken within the last year? If you have not, do not be too sure that your body is free from tubercle bacilli, even though you are the picture of health. As far as I knew, there was no active tuberculosis in my family. I cannot tell you where I came in contact with the germ; but I have spent ninety-nine weeks of anxiety, ninety-nine weeks of slow recovery, because I was an ostrich and hid my head in the sand after I suspected the truth. I was afraid to face facts, so I called my cough "bronchitis" and avoided an x-ray examination until I had an advanced case.

Unfortunately the first symptoms are not alarming. There are four common signs: tiredness, loss of weight, indigestion and a persistent cough. It is only natural to feel tired at times; but a persistent fatigue, when there is no good reason for it, may be a warning of tuberculosis. Loss of weight and indigestion might be the result of any number of physical disturbances. When you have these symptoms in combination with an irritating cough, hoarseness and a desire to clear the voice to get rid of a tickling in the throat, *beware* of danger. A simple cold should clear up within ten days or three weeks at most. If your cough persists after that, you have a clue frequently leading to tuberculosis.

Running a slight temperature in the afternoon, pleurisy pains in the chest and blood streaked sputum are warnings you cannot afford to disregard. They definitely call for an examination by a physician who understands diseases of the chest. The tuberculin test and an x-ray examination of the chest are two modern aids which help the physician diagnose tuberculosis in its earliest stage. The tuberculin test is a painless skin test that will cause you no discomfort. If the result is positive, it means only that you have tuberculosis germs in your body. This is not necessarily a cause for worry, because a healthy body fights these intruders of its own accord and usually wins, unless you allow yourself to get in a rundown condition; but it does mean that you need to be on guard. If the result is negative, you are relieved of your fears and have the satisfaction of knowing you are safe. However, you must remember that a healthy chest now is not a guarantee that it will continue that way for years to come. Check up on your condition each year to be on the safe side.

The next step after a positive tuberculin test is an x-ray examination. Don't stop with a stethoscope examination, because early tuberculosis can be "seen" with the eye of the x-ray before it can be "heard" with the ear.

If the physician says you are infected with the disease and must rest, please take his advice. He knows what he is talking about, for he has seen the disease play havoc with the lives of thousands of persons. You can't beat the rap. It is foolish to try. Tuberculosis is a relentless disease. Slowly but surely it will sap you of your strength. If you wait to take the rest cure until it has worn down your resistance and you feel sick enough to give up and go to bed, it is often too late to effect a cure. And now is the time that you will be showered with advice by well meaning friends and relatives. Mrs. B will remember a friend who went to Colorado and was cured in just no time at all. Colorado may be all right for some one with a strong heart, objects Mrs. A, but her sister had "consumption" and she took sun baths right in the back yard at home. Of course that was in 1910, and her sister didn't get well, but then she'd been "puny" from childhood. Uncle John will write you to tell you about his cousin Jim in Oklahoma who cured himself by rubbing liniment on his chest. It boiled the poison right out of his system. He will forget to tell you that while this "boiling" process was going on, three younger members of the family contracted tuberculosis and died, because they were in daily contact with deadly germs. Absurd as these stories may seem, while you are stunned from the shock of learning that you have tuberculosis, you may be inclined to grasp at any straw which will save you from months of rest spent in bed as prescribed by the doctor.

You may say, "I can't afford to give up my work and go to bed." You can't afford *not* to. Early tuberculosis is usually easily cured. An early diagnosis may save you hundreds of dollars. An advanced case can easily cost you thousands of dollars.

Because tuberculosis is a major problem of public health, clinics and sanatoriums for the treatment of tuberculous patients have been established all over the United States. Many of them are free. They are supported by taxes, and you will receive the best of care in most of these institutions. Too often we feel that the more we pay for a thing, the better return we are getting for our money. I have found by experience that this is not true in regard to care in a sanatorium.

According to figures compiled by the National Tuberculosis Association, in April 1938 there were available for tuberculous patients in continental United States 78 federal institutions, providing 8,362 beds, and 399 state, county and municipal sanatoriums or hospitals with 64,042 beds. Provisions were being made for an additional 5,000 patients. These figures do not include the facilities of day and summer camps. Such states as Arizona, New Mexico, California and Colorado have a great many private or semiprivate sanatoriums supported only by the fees of patients or by private contributions and endowments. The hundreds of discouraged health seekers who move to a dry climate as a last resort have made it necessary for these states to issue a warning that there are no free beds for nonresidents.

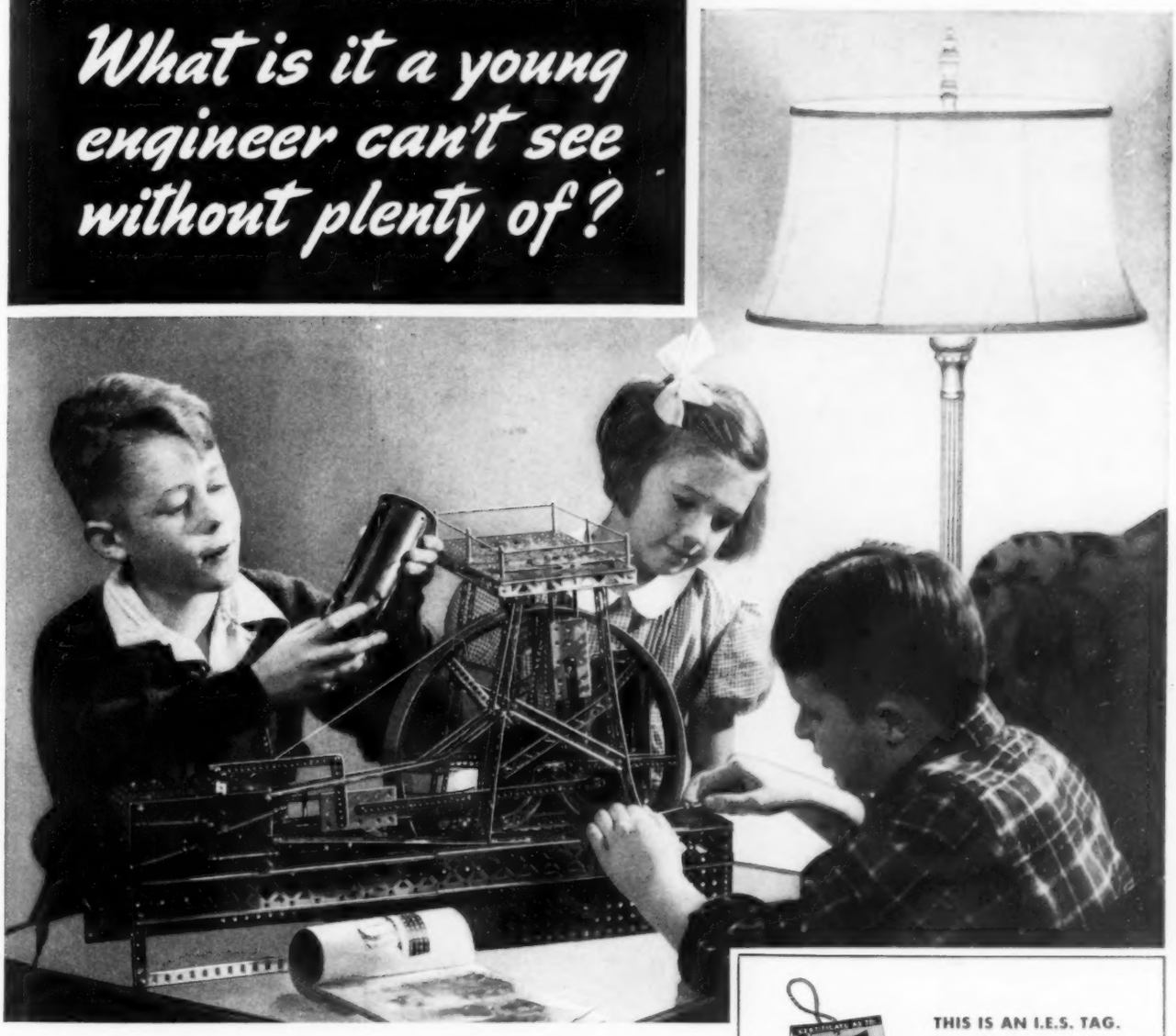
By taking your doctor's advice and submitting to hospitalization early in the game you are doing your duty in helping to prevent the spread of a devastating disease. Just as one small weed seeds down the area surrounding it, so does a tuberculous person infect innocent victims with whom he comes in daily contact, unless the utmost care is used. The sanatorium is a training school teaching the patient how to protect others. Tuberculosis germs are so tiny that a thousand can pass through a pinhole. They can enter the body on a speck of dust or the small drops sprayed out by coughing or sneezing. While they live for several hours in moist sputum, they die in a few minutes in boiling water. Sunshine will kill them in a short time. It is unfortunate that these germs are not visible to the naked eye, for if you could see the rim of a drinking cup wriggling with death-dealing enemies, you would avoid it like poison. Since they are invisible, a person puts a pencil, a spoon or a whistle into his mouth, and when he breaks down with tuberculosis, he has no idea that he himself has unwittingly helped those germs to enter his body.

In the sanatorium the patient learns how to dispose of infectious material in a paper bag, so it can be burned, and how to care for dishes and clothing. There he is isolated from well persons who might get the disease from contact with him. It takes will power to leave home and loved ones, but it is always the wise thing both for the person who is ill and for his family. In the sanatorium, everything is carefully arranged to protect the patient from the worries of everyday life. Perhaps for the first time in his life he has a chance to have the needed amount of rest and relaxation. He spends his time in the company of others who have the same objective — to win back health —and it is surprising how cheerful that atmosphere is. If you have visions of long lonely hours spent flat on your back in bed, visit a modern sanatorium, and see for yourself a colony of busy persons sitting up in bed, supported by backrests, reading, writing and pursuing hobbies which occupy their time and minds.

If every case of known tuberculosis could be traced back to the person who caused it, the fight to prevent tuberculosis would be simplified. So many times the person you least suspect is the guilty carrier. Aunt Emma who has had "asthma" for years also has tuberculosis, but this fact is not known because she has never had an x-ray examination. She is fond of children and kisses them frequently. Every time her lips touch theirs they are in danger. Another relative may have "bronchitis," and her chronic cough is never suspected as a masquerade for tuberculosis. "Bad sinus" cases often harbor tuberculosis germs. I am not a health crank, and I do not advise you to shun the poor Aunt Emmas of this world as if they were grim death. This attitude is stupid and unnecessary, but you can take precautions against contracting the disease if you use care in associating with such persons.

It is an encouraging fact that the death rate from tuberculosis has dropped steadily in the last few years. In 1904, 200 in every hundred thousand persons in the United States died from tuberculosis. That number has been reduced to 53.6. *But none of these deaths is necessary.* When Mr. John Q. Public realizes his responsibility in helping to stamp out the disease, then and only then will the world be rid of tuberculosis. Remember *your* home is not safe from tuberculosis until *every* home is safe.

What is it a young engineer can't see without plenty of?



YOU'VE guessed it! The answer is GOOD LIGHTING. Children trying to see with poor lighting may strain precious eyes before you know it!

2 THINGS TO DO

1—Get a Certified I. E. S. Lamp, the kind with a big shade and a diffusing bowl inside that cuts out glare.

2—Be sure that you use the right size G-E MAZDA lamp bulb. A 100 watt, a 150 watt, or a three-lite, depending on the size of the lamp.

G-E MAZDA LAMPS

GENERAL ELECTRIC

Made to stay brighter longer

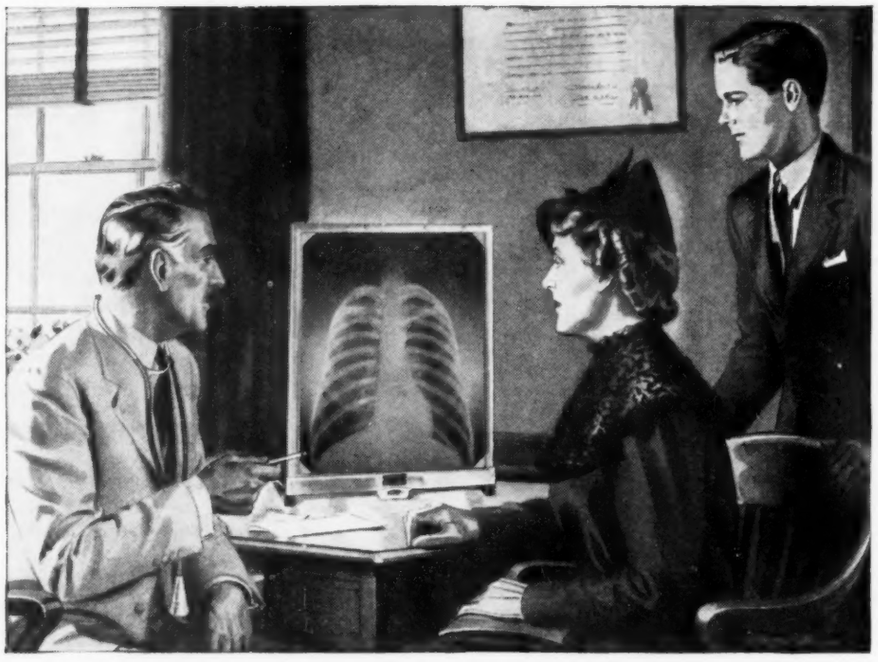
THIS IS AN I.E.S. TAG. It's all you need to look for when you want to buy a good reading lamp.

G-E MAZDA LAMPS are brighter than ever this year and *stay brighter longer* . . . 15, 25, 40, 60, 75 and 100 watt **15c**

150 watt **20c**

100-200-300 watt **60c**

G-E DIME LAMPS are a real value at the price. 7½, 15, 30, and 60 watt sizes . . . . . marked G-E **10c**



"Aren't you glad your son had this picture taken?"

AN X-RAY PICTURE of your lungs may give comforting reassurance that you do not have pulmonary tuberculosis. However, it might indicate the presence of the disease.

▶ Although America's death rate from tuberculosis was lower in 1939 than ever before, the distressing fact remains that this disease still is a major cause of suffering and death—and the *leading cause of death among young people.*

It is between the ages of 15 and 30 that the disease claims its greatest number of victims. So, to mothers and fathers who have reason to worry about their children's lungs, and to young people within these age limits, the X-ray can be a friend indeed.

▶ For the X-ray helps to reveal tuberculosis *before familiar, obvious symptoms are recognized.* And when found in the early stages, the disease usually can be cured. So this simple precaution can save many months of suffering, sacrificed savings, lost earning power.

More and more schools and colleges are making available facilities for regularly checking the health of all their students. Progressive industries and communities are learning the economic benefits of discovering tuberculous cases early within large groups of people where the disease is apt to spread. Many communities are offering tuberculin tests and X-ray examinations at low cost, or even free to those unable to pay.

▶ Of course, such examination is even more imperative in the case of those who are known to have been exposed to infection from a person who has active tuberculosis. Also in cases where the most common warning symptoms of tuberculosis are present, such as—persistent pain in the chest, constant sense of fatigue, loss of weight, frequent indigestion or lack of appetite, persistent cough or hoarseness, spitting of blood, afternoon rises in temperature.

Since medical science is today better able than ever to diagnose tuberculosis *early*, and to cure it when discovered *early*, the best way to stamp out this disease is to detect *early* cases and so prevent its spread.

▶ You can do much to guard your home against tuberculosis. Send for the Metropolitan's free booklet, "Tuberculosis." Write Booklet Dept. 440-Z, 1 Madison Avenue, New York City.

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COUNTRY DOCTOR

Schools were closed in the afternoon and all business was suspended under proclamation of the mayor when David L. Bley, M.D., was buried last February 19 in Staunton, Ill. He had practiced in that town of 4,500 and the surrounding county for sixty-three years before his death at age 86.

Rain fell, but Dr. Bley's townsmen and hundreds of farmers and their wives ignored it as they gathered to pay their last respects. The crowd was so large it took several hours for all to pass his bier. The funeral chapel was packed for the service, and hundreds more stood outside in the rain until the procession started for the cemetery. The pallbearers were men who were brought into the world by Dr. Bley, as were the officers of the Masonic lodge who conducted his funeral.

THIS CROSS-EYED WORLD

(Continued from page 315)

your head—anything. But don't pile his bed with "busy" toys.

If preventive methods fail and a child's eyes become crossed, it is imperative to do something about the matter at once. Children afflicted with cross-eye often develop unsocial and antagonistic attitudes, may be badly coordinated, clumsy, hug-the-hearths. Physically the handicap is serious. It is almost always accompanied by poor vision. There is no depth of perception. In more than half the cases, the cocked eye grows progressively weaker and becomes, for all practical purposes, blind. The one-eyed individual is common enough to worry safety authorities, who find that his lack of vision contributes to many accidents. There are an estimated 10 million persons who suffer from latent squint. They are not discernibly cross-eyed except under stress or fatigue.

Whatever the degree of squint, it is wise to take advantage at the earliest moment of the devices medical science has worked out for cure. The method your doctor advises will depend on which of the fifteen-odd varieties of cross-eye you suffer from. But whether it be patches, glasses, orthoptics or surgery, cooperate with him. Cross-eye is not to be taken lightly.

"HAVE YOU EVER WANTED TO HUG YOUR DOCTOR?

. . . I did the day I was six weeks old and he started me on Libby's Baby Foods!"

Yes—that's right! Lots of babies are *now* being started on Libby's specially prepared vegetables and fruits as early as six or seven weeks!

Libby's Baby Foods supplement the milk diet with precious minerals and vitamins that help babies grow up big and strong.

And babies do like the smoothness of Libby's Baby Foods. They're extra fine in texture because they're first strained and then specially homogenized. This double process (only Libby's Baby Foods are prepared in this way) makes Libby's extra easy to digest!

Be sure to ask your doctor when *your* baby can begin to have Libby's Baby Foods.

Libby's Baby Foods are first strained—then specially homogenized—to make them extra easy to digest.
Libby's Baby Foods are available at your dealer's, or he can easily get them for you.

13 Different Varieties

3 Single Vegetables
Carrots—Spinach—Peas

5 Vegetable Combinations
No. 1 Peas, beets, asparagus
No. 2 Pumpkin, tomato, green beans
No. 3 Peas, carrots, spinach
No. 9 Peas, spinach, green beans
No. 10 Tomato, carrots, peas

Cereal Combination
No. 4 Evaporated milk, whole wheat, soya flour

2 Fruit Combinations
No. 5 Prunes, pineapple juice, lemon juice
No. 8 Bananas, apples, apricots

2 Soups
No. 6 Vegetables, chicken livers, barley
No. 7 Vegetables, soya and barley flour

Libby's Homogenized Evaporated Milk—pure, economical, convenient. An ideal milk for babies.

Libby's HOMOGENIZED* BABY FOODS

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ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

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CANNED FISH and SEA FOOD

CANNED fish and sea food are useful in the diet for a number of reasons. They are primarily protein foods, just as other meat, eggs, fowl and cheese are protein foods. Protein must always be supplied in the day's meals in order to provide material needed for repairing the wear and tear on body tissues and for building new tissues. During the course of digestion, food proteins are converted into several distinct and simple substances which can pass through the wall of the intestine and be taken into the blood stream. These simpler substances are known as amino acids. The amino acids circulate in the blood, and the body cells select the particular amino acids that they need for building and repairing tissue. Any amino acids that are not required for these purposes are broken down into still simpler substances, of which some are oxidized and some excreted by the kidney as waste products. Fish protein like meat protein, eggs and cheese con-

Catching tuna with a bare hook is the commercial practice along the coast of Nova Scotia, where these fish grow to enormous size and weight. They travel in schools, and once the school is lured by bait, nothing is required to catch them but a curved hook, a line and the fisherman's strength to haul them in.

The tuna are taken to the cannery, where they are first eviscerated, and the livers separated for the extraction of the vitamins. The fish are then thoroughly washed and cooked; then skinned, boned, and the dark meat is removed. Here is the remaining white meat of the tuna, which is now ready for packing in cans.

tains all the essential amino acids, without which the body cannot function.

In addition to protein, fish and sea foods contain minerals and vitamins.

The mineral content of fish varies with its environment. Salt water fish contain more minerals and more iodine than fresh water fish, and iodine is essential for normal nutrition. If it is not present in the diet, a deficiency disease, simple goiter, may develop. Iodized salt was introduced to provide a convenient source of iodine. The inclusion of sea fish and other sea foods containing iodine in the diet is a factor of importance in the prevention of this deficiency disease. Sea fish and shell fish, such as the lobster and oyster, contain more iodine than other sea food.

Fish provide some vitamins. The flesh of lean fish furnishes vitamin B_1 and the pellagra-preventive factor, nicotinic acid. A little vitamin A is present in the flesh of lean fish, but considerable amounts are found in the body oils of some fish such as red salmon, less in the pink variety.

Fresh fish are preserved for short periods by being packed in ice; but this is only a temporary means, and the quality of such products will be lowered after a few days. The chief means of preserving fish for a longer period are quick freezing, canning, salting, smoking and drying. Sometimes two or more of these methods are combined.

Canning is the most extensively used method of preserving fish in the United States. The loss of nutritive value is so slight during the canning process that it may be said that canned fish has the same nutritive values as fresh fish. Canned fish is cooked fish and may be eaten cold as a salad or appetizer.

Salmon is the most important canned sea food. There are five species of salmon which are canned: red, or sockeye; pink; chum, or keta; medium, red coho, or silverside, and king, or Chinook. In 1937 the salmon pack in the United States amounted to 7,526,197 cases of 48 cans, each containing 1 pound.

Sardines as canned on the coast of Maine are small herring; while those canned in California are known as pilchards. Canned sardines are usually packed with olive oil or tomato sauce or curry sauce.

Canned tuna is usually packed with cottonseed oil. For this reason canned sardines and canned tuna yield more calories per pound than canned salmon or canned crab.

ACCEPTED CANNED FISH AND SEA FOOD

The following brands of canned fish and sea food stand accepted by the Council on Foods of the American Medical Association and are described in the book "Accepted Foods and Their Nutritional Significance," published by the American Medical Association.

CRAB

Frigid Zone Crab

SALMON

Libby's Blueback Salmon
Libby's Chinook Alaska Salmon
Libby's Chinook Salmon
Libby's Red Alaska Salmon
Libby's Sockeye Alaska Salmon

SARDINES

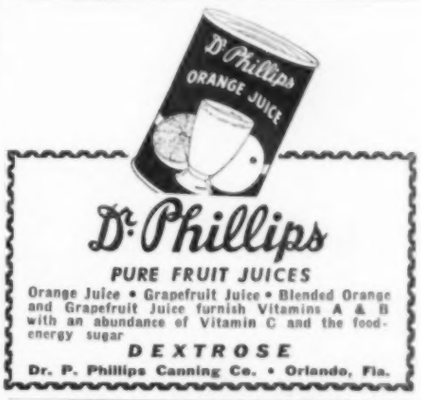
Hovden's California Sardines, *peeled and boneless, packed in olive oil*
Hovden's California Sardines, *French style, packed in olive oil*
Hovden's California Sardines, *garnished with slices of pickle, carrot and pimiento, packed in olive oil*
Hovden's California Sardines, *smoked and boneless filets, packed in olive oil*
Hovden's Sardines, *steam grilled, packed in olive oil and tomato sauce*
Portola Filet of Pilchard Sardines, *packed in olive oil*
Portola Pilchard Sardines, *garnished with slices of pickle, carrot and pimiento, packed in olive oil*
Portola Pilchard Sardines, *boneless and peeled, packed in olive oil*
Portola Pilchard Sardines, *French style, packed in olive oil*
Portola Pilchard Sardines, *steam grilled, packed in tomato sauce and olive oil*
Portola Pilchard Sardines, *steam grilled, packed in curry sauce and olive oil*
Prefet California Sardines, *packed in olive oil and mustard sauce*
Prefet California Sardines, *packed in olive oil and tomato sauce*
Prefet Filet of Sardines, *smoked and boneless, packed in olive oil*
Prefet Pilchard Sardines, *boneless and peeled, packed in olive oil*
Prefet Sardines, *French style, packed in olive oil*
Prefet Sardines, *garnished with slices of pickle, carrots and pimiento, packed in olive oil*

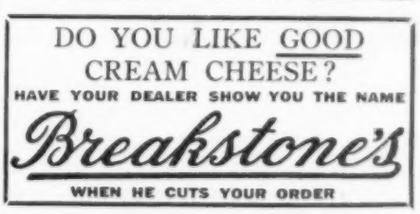
TUNA

Chicken of the Sea Tuna
Portola California Tuna
White Star Tuna

OTHER SEA FOODS

Olav's A and D Vitamin Pâté





Mention HYGEIA
when writing to Advertisers

AFTER THE WAR IS OVER

(Continued from page 307)

was a show Sally Rand put on for us fellows out here."

What a busy place the General Mess is at mealtime. As I sat with the head dietitian and watched the patients laughing and talking as they waited their turns, I almost felt I was in any large bustling city cafeteria—if it hadn't been for the informal attire of many of the men in their gray bathrobes, with their vari-colored pajama legs peeping out from beneath their robes. Huge steam tables keep the food hot at all times. As I continued to watch the long line of hungry men in turn scan the tasty food arrayed before them, I could readily understand how over $400,000 is annually spent for food in this great hospital.

"There is nothing like appetizing food to keep men happy and contented," the dietitian remarked. This General Mess hall seats about 500 persons and feeds both the patients and enlisted personnel; the patients form a line on the left and the personnel on the right. There are other mess halls on the grounds for the officer-patients and nursing staff.

"Naturally, the patients who are not able to walk and those confined to their beds have their trays prepared and sent in special food trucks to the wards," the dietitian informed me. She went on to say that the patients on special djets are always fed first. Also, that certain diets are made out according to a patient's particular needs. Such diets as soft, Sippy, nephritic, low-fat and other complicated menus for the many different patients, fill the hours of this busy, efficient person from morning till night, because there can be no guessing as to what each patient should eat.

We entered the occupational therapy section, where the patients spend many of their hours working with reeds, leather, pottery and weaving.

A young man showed me just how the loom for making string rugs was operated. Five looms are constantly in use. A man across from him, feet tucked around the chair legs, was making a purse out of brown leather. Across the room on the potter's wheel a beautiful rose vase was taking form; while a man bent over a table, biting his pencil, studied the paper in front of him and then smiled as he leaned over and added a line. As I approached he grinned and explained, "There, that rug design is just as I want it."

I turned to the woman who is in charge of this busy place and said, "I could spend hours here; every one is so thoroughly happy and contented.

"Yes," she replied, "and they are always this way."

Next we visited the large auditorium which is so comfortable with its huge easy chairs sprinkled around; men were talking, smoking and laughing as they played cards on tables put up around the room. The huge stage, which has been hung with deep rose velvet draperies, is equipped for motion pictures where the latest movies are shown four nights a week.

Dances, lectures, plays and musicales are arranged for the men on other nights. Here the men are bound to find the type of entertainment in which each is interested. The numerous organizations of Denver and surrounding communities play a great part in the welfare work at Fitzsimons by furnishing programs for the entertainment of the patients and with birthday remembrances, Christmas parties and gifts.

To me, one of the most interesting buildings was the Post Exchange. This block-long, single story structure is the general department store of this small community and houses the grocery store, drug store, butcher shop, barber shop, tailor shop, clothing store, restaurant and the post office, a branch of the Denver Post Office.

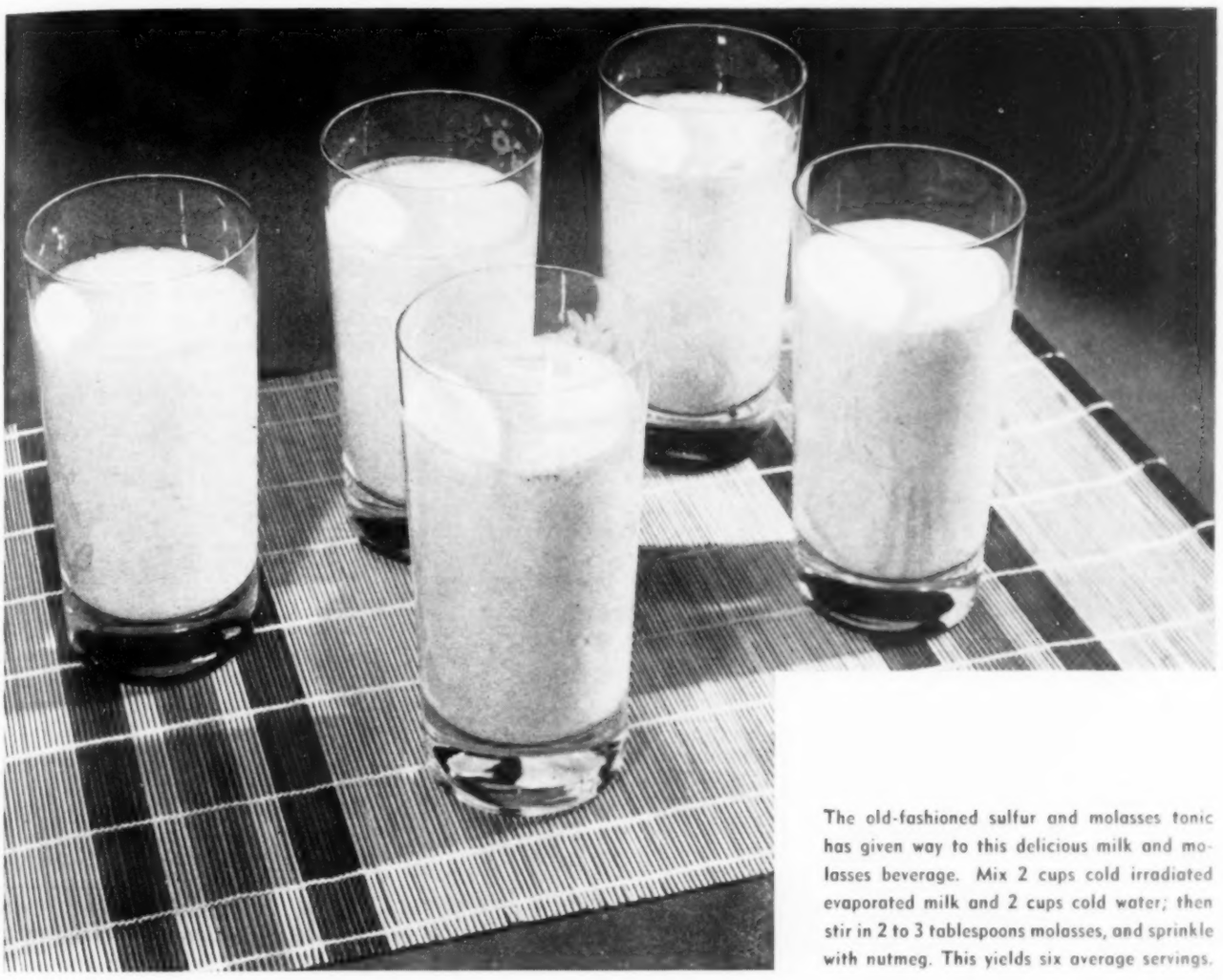
At some time since this great hospital was built, men from every state in the Union have been patients here, receiving not only scientific medical care expertly administered but a warm, friendly interest in their welfare; courtesy and respect, regardless of rank, have added inspiration to rapid recovery.

In 1918, the War department selected Denver, at the suggestion of the late Col. George E. Bushnell who was head of the tuberculosis section in the Surgeon-General's office during the World War, as the best location for the erection of a general Army hospital for treatment of tuberculosis. Colonel Bushnell served at Fort Bayard—the former tuberculosis hospital of the Army—from 1904 to 1917 as commanding officer. Colorado with its invigorating, dry air and bright sunshine, was selected as the place to build this hospital for the care of the tuberculous men who had become ill while serving their country. By order of the War Department the name was changed to Fitzsimons General Hospital, in honor of Lieut. William Thomas Fitzsimons, M.O.R.C., a doctor and the first officer of the Armies of the United States to be killed in the World War, Sept. 4, 1917, while on duty at Base Hospital No. 5, Dornes-Comiers, France. Reverently preserved in a glass case that hangs on the wall in the office of the commanding officer at Fitzsimons Hospital are the medical belt worn by Lieutenant Fitzsimons at the time of his death, fragments of the shell taken from his body and an order performed by him authorizing his last journey.

During the early part of 1939, the War Department decided to add another building here at a cost of $4,000,000. It will be, when completed, the largest building ever constructed by the Army in Colorado. In addition to operating rooms, laboratories and administrative offices, it will accommodate about 700 patients. It is under construction now and will be completed later this year. President Roosevelt, who has twice visited the hospital, realized such a building is really needed to continue the great work going on there at Fitzsimons General Hospital.

Guests at Fitzsimons can readily see how this friendly, happy place changes sick men into strong ones through the best possible medical aid and sends them back into the world as new men with a happy outlook for the future. Every year, 60 to 70 per cent of the tuberculosis cases leave, pronounced arrested or so improved that the doctors feel it safe for them to leave. Some of these patients are among the 10 per cent of the tuberculosis patients that have been considered in a hopeless condition on their arrival at the hospital.

This enormous institution—enormous in structure as well as deed, is truthfully the hospital with a soul.



The old-fashioned sulfur and molasses tonic has given way to this delicious milk and molasses beverage. Mix 2 cups cold irradiated evaporated milk and 2 cups cold water; then stir in 2 to 3 tablespoons molasses, and sprinkle with nutmeg. This yields six average servings.

YOUR SPRING TONIC

By MARJORIE ACHESON

WANING appetites and other spring ailments were at one time treated with a good dose of sulfur and molasses; today most cases respond to the pleasant prescription of eating some new and tasty foods.

The run down, easily fatigued, listless, nervous child or adult with a poor appetite may benefit by a change in diet. The pleasant thing about this sort of prescription is that the entire family will enjoy and profit from it. A well planned campaign on the mother's part will appear to the family to be nothing short of a miracle, which an adolescent daughter will probably describe by saying that mother's cooking has positively gone luscious.

The appetite stimulator, physical build-up, nervous let-down is found in many springtime foods, and they add zest to eating, whether it be breakfast, lunch or dinner. Even shopping for these meals will be a pleasure, for the food in a modern grocery store, with its great variety, color and aroma, is the assembled cream of the crop from our own as well as foreign countries. Fragrant pineapple, with its spired green crown is indeed queen of the tropics and the neighborhood grocery store. The vegetable window, with its dew-drop spray, presents a symphony in green. Texas, Florida and California vie to supply oranges, lemons and grapefruit to you.

Market places and grocery stores might adopt the tricks which the "patent medicine" companies use in advertising. Brazen placards set in front of display cases bark, "For a sure cure for that run down, listless, nervous person with a poor appetite, buy our guaranteed fresh eggs, sweet potatoes, lettuce, spinach, cabbage, string beans, carrots, yeast, milk, whole grained cereals, corn, liver, oranges, grapefruit, pineapple, nuts and tomatoes."

Another poster might give the daily dose for the spring fever cure: one quart of milk, eight slices of bread, two eggs, one serving of some leafy vegetable. Few of us eat so much bread, milk or eggs; therefore add other foods from the "Sure Cure" list.

Spring offers abundant selection of fresh vegetables and fruits which combine easily with eggs, milk and even whole grained cereals. A beautiful to look at, delightful to

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Quickly Strains:
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Start your baby with the full flavor and food value of properly cooked *fresh* vegetables and fruits. You can strain them quicker, easier and cheaper too with the Foley Strainer. Just a few turns of the paddle separates fibres and strains food fine enough for the smallest baby. Thousands of doctors approve the Foley Strainer at the American Medical Association's Convention each year.

How to Cook Baby's Food

Proper methods for home cooking of foods to preserve full vitamin and mineral content are given in our booklet sent with each Foley Strainer—or free upon request.

75¢ at department and hardware stores —or—Send $1.00 direct to us for Foley Strainer with special pan to match, mailed postpaid. Free booklet on request.

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535 No. Dearborn Street Chicago

taste luncheon using many of these important foods is:

Carrot ring soufflé
Toasted cheese sandwiches with bacon
Buttered fresh peas
Orange grapefruit salad
Oatmeal cookies
Chocolate milk

Carrots, that vegetable for beautiful women, are often lined up with the vegetable "wallflowers," since there is nothing unusual or striking about them. "Popeye" has come to the rescue of the once unpopular spinach green, but absolutely no one—unless it be the Easter bunny, who comes but once a year—gives good publicity to the mineral and vitamin-rich carrot. Its bland flavor probably accounts for lack of popularity. In the luncheon, the accompanying foods contain textures and flavors which contrast pleasantly with the Carrot Ring Soufflé, which is made in this way:

Carrot Ring Soufflé

2 cups carrots
1 tablespoon butter
2 tablespoons flour
2 cups milk
1 tablespoon sugar
2 eggs beaten well
Dash of pepper
1 teaspoon salt

Cook carrots until tender, then press through a ricer. Melt the butter in a saucepan, add the flour and the milk. Stir over a flame until a smooth white sauce forms. Add the riced carrots, sugar and the well beaten eggs. Blend. Pour into a buttered ring mold or into a buttered baking dish. Place the baking dish in a pan of water, and bake 1 hour at 350 F.

Carrot Ring Soufflé may be served with buttered fresh or frozen peas in the center of the mold. Canned peas lack the bright green color which tempts indifferent spring appetites. Cook the peas in salted boiling water in an open kettle. A teaspoon of vegetable oil added to the water at the beginning of the cooking process will season the peas and improve the texture. Additional butter may be added after the excess water has been poured off or evaporated at the end of the cooking period.

Cheese sandwiches are truly delightful with this meal, because they are crisp and tasty. Preheat the broiler in order to make the sandwiches not too dry.

Cheese Sandwiches

Toast thin half slices of bread on one side only. Butter the untoasted side and place thin slices of cheese on top. Place a few small pieces of bacon on the cheese. Put the sandwiches under the flame. Adjust the temperature and distance from the broiler burner so that the cheese and the bacon will cook but not burn or become tough.

Orange and grapefruit salad is colorful, tart and cool. The chilled fruit should be served in segments with the membrane removed and placed on a garnish of curly endive and watercress. Serve with the following dressing:

Celery Seed Dressing

⅝ cup sugar
1 teaspoon salt
1 teaspoon mustard
1 tablespoon onion juice
¼ cup vinegar
1 cup salad oil
1 tablespoon celery seed

Measure dry ingredients into a small mixing bowl. Mix sugar, salt, mustard, and add the onion juice. Add a small amount of vinegar, and beat with a dover beater. Then add the oil gradually, and continue to beat until the oil is used. Add the remaining vinegar and the celery seed. Beat well.

A pleasant way to get that dose of whole grained cereal a day is to make cookies. These might easily come under the guaranteed-to-be-satisfactory clause both from the point of view of being palatable and healthful.

Oatmeal Cookies

½ cup shortening
½ cup sugar
1 egg
1¼ cups rolled oats
1¼ cups flour
½ teaspoon cinnamon
½ teaspoon soda
⅛ teaspoon salt
½ teaspoon nutmeg
2 tablespoons sweet or sour milk
¼ cup raisins
¼ cup chopped nuts

Cream the shortening and sugar. Add egg, and cream the mixture. Add the rolled oats, and mix all together. Sift flour, cinnamon, soda, salt and nutmeg together and add alternately to the mixture with the milk. Roll on a floured board as thin as can be handled, cut in desired shapes, and bake in an oven at 375 F. Sugar may be sprinkled on the dough while rolling, if sugar coated cookies are desired.

The whole grained cereal, which is necessary to the healthful functioning of the digestive apparatus, may be taken in many forms much more pleasant to the adolescent than just plain breakfast food. Boston

brown bread, scones, Scotch bannocks, whole wheat bread and well cooked oatmeal or cracked wheat served with dried or fresh fruit make interesting changes from the usual meal.

French endive, which looks as if it might be related to both celery cabbage and romaine, is on the market in many town as well as city grocery stores. It may be used in a mixed green salad or as a garnish. An attractive salad using French endive as a garnish is:

Star Salad

Remove the skin, then quarter the top part of a tomato. Leave the bottom intact. Spread apart at the top. On the plate between each quarter section lay a leaf of endive, the point out. In the center of the quartered tomato place a mixture of:

Shredded cabbage
Chopped green pepper
Celery diced into ⅛ inch cubes
Salt to taste

Blend lightly with French dressing.

Whether you use California dandelion greens, or whether you wait until they grow in your own back yard, you may have a change from ordinary boiled greens in this way:

Wilted Dandelion Greens

Chop 4 bacon slices into ¼ inch squares. Broil until crisp, stirring constantly. Add:

2 teaspoons chopped onion
1 teaspoon sugar
2 tablespoons vinegar

Pour over a dish of well washed, tender young shoots of dandelions. Stir well until the greens are wilted. Serve hot.

Canned vegetable soup, as wonderful a concoction as ever did the too busy, or the delicatessen-dependent, housewife discover, may be varied with a home made soup to stimulate languid appetites.

Vegetable Soup

⅓ cup carrots, scraped and cut into long thin strips
⅓ cup turnips, prepared in the same way
½ cup celery, cut into fine slices
¼ onion
1½ cups potatoes cut into small pieces
1 quart water
5 tablespoons butter
2 teaspoons finely chopped parsley
1 teaspoon salt

Cook all the vegetables except the potatoes 10 minutes in 4 tablespoons of butter, stirring while the vegetables cook. Add the potatoes, and cook a few minutes. Add the cold water and salt, and cook 1 hour

Do nice girls ever *grab?*

It's really excusable—if Sister's willing! After all, a young lady can't be *too* restrained when something extra good is passed around.

Finicky youngsters, the country over, delight their mothers by showing real enthusiasm for dishes made with Irradiated Carnation Milk. They like that *creamy* taste—perhaps they secretly feel that it's a forbidden grownup luxury! They love it on their cereals, double-rich—or diluted for drinking. And if they were raised on a Carnation Milk formula, as thousands of babies are, what's more natural than happily *continuing* with the same fine milk?

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You're missing a lot, if you think of Carnation Milk as merely a *baby* milk. It's an ideal milk in every way, for every age the family boasts!

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Certainly a unique book! "ACCEPTED FOODS" by the A. M. A. Council on Foods is immensely practical for the everyday use of anyone interested in human nutrition. Indispensable to physicians, dietitians, home economists and mothers of growing children.

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in a deep well cooker or in a steamer. Add the remaining butter and the parsley. Serve steaming hot. Taste before serving, as more salt may be needed.

Green beans may be dressed up by following a German recipe for:

Hot Bean Salad

1 pound of green beans
½ teaspoon salt
1 tablespoon sugar
1 onion
2 tablespoons vinegar
¼ cup vegetable oil

Wash the beans for cooking and slice lengthwise. Add the salt and sugar; cook uncovered for 30 minutes. Cook longer if necessary, and watch liquid. More may be needed, but it is best not to drain any away. When tender, there should be just enough moisture to avoid sticking. If necessary, however, drain, add sliced onion, vinegar and oil. Serve hot. Taste before serving; vinegar differs in strength, so more may be needed.

A variation in the preparation of green leafy vegetables is often desirable. This recipe combines the acid tomato with the bland green vegetable to create a flavor which is very pleasing. It is prepared in this manner:

Casserole of Tomatoes and Spinach

¼ cup fine bread crumbs
No. 2 can of spinach, or 1½ pounds of fresh spinach cooked
No. 2 can of tomatoes, or 1½ pounds of fresh tomatoes cooked
1 teaspoon salt
1 teaspoon onion juice, made by rubbing onion on a grater
Pepper
1 tablespoon of butter

Brown the bread crumbs in a teaspoon of melted butter in a small skillet over a low flame. Stir constantly. Place bread crumbs in the bottom of a buttered baking dish. Add a layer of spinach, half the onion juice, salt, pepper and tomatoes, from which part of the juice has been drained. Repeat until a second layer of spinach and tomatoes has been made. Dot the top with butter. Add the remaining ¼ cup of buttered bread crumbs, and bake for 40 minutes in an oven at 350 F.

The success of this dish depends on getting the bread crumbs a golden brown, removing all the grit from the fresh spinach and on getting not too much nor too little liquid on the vegetables. The excess tomato and spinach juice may be used for soup. Spinach juice contains the iron which dissolves when the vegetable is cooked: therefore *do not* throw it away, or the most valuable part will be wasted. If you don't need it for soup, drain the juice into a small saucepan and allow some of the liquid to evaporate, and pour the liquid over the spinach. Fresh spinach is cooked in the water which adheres to the leaves from the washing. Stir continually to keep it from sticking to the kettle, until enough moisture escapes from the leaves to prevent burning. An emerald green color will remain if the green leafy vegetables are cooked in an open kettle.

A mother of three husky children decided that her family must learn to eat the valuable and inexpensive carrot. This is the way they like their carrots.

Melt 3 tablespoons of butter in a saucepan. Add to this 1 teaspoon of onion juice, made by rubbing the onion over a grater; then add the sliced carrots. Cook for 5 minutes, add ½ cup boiling water or enough to keep the carrots from boiling dry. Add salt and pepper; then cover to complete the cooking process. Cook only until tender. Serve hot.

One specially nice thing about liver is that it is a valuable source of many minerals and vitamins that the body needs. We eat liver either because we like it or because we know it is good for us. For the persons in the latter group, liver may be cooked in a new method or served with a new accompaniment. A mild mustard is good combined with liver, and it is quite suitable for adults. If your family objects to following the liver-once-a-week dietary rule, try this recipe:

Liver with Vegetables

1½ pounds beef or calf liver
¼ cup flour
1½ cups tomato soup or cooked tomatoes
1 medium sized onion
1 green pepper
3 or 4 tablespoons fat
1 teaspoon salt
Pepper

Wipe the liver with a damp cloth, remove tough tissue, and dip the liver in flour. Place in the skillet which contains hot fat, and brown well. Add the tomatoes, salt, pepper, the sliced green pepper and the onion. Cover the skillet, and bake in a 325 degree oven for 2 hours. Serve the vegetables with the meat.

Never would the musical query, "Who has seen the muffin man?" have to be asked, if children and adults knew he was selling blue-

berry muffins. One would have only to follow the crowd, and there he would be. They are made in this way:

Blueberry Muffins

¼ cup butter
¼ cup sugar
1 egg well beaten
2 cups flour
4 teaspoons baking powder
½ teaspoon salt
1 cup milk
1 cup blueberries

Cream the butter, and add the sugar gradually, creaming while adding. Then add the well beaten egg. Sift the flour, baking powder and salt together, and add them alternately with the milk to the butter and sugar mixture. Fold in 1 cup blueberries. Bake in greased muffin tins at 400 F. for 30 minutes.

Graham Date Muffins

1 cup white flour
1 cup graham flour
3 teaspoons baking powder
½ teaspoon salt
2 tablespoons sugar
1 cup milk
1 egg well beaten
¼ cup melted butter
½ cup of chopped dates

Sift together dry ingredients. Mix milk with beaten egg, and add to dry ingredients. Add the melted butter, and blend with as few strokes as possible. Bake in greased muffin tins, or in paper muffin cups, at 425 F. for 30 minutes.

Sweet Potato Cups

2 pounds sweet potatoes, mashed
1 teaspoon salt
2 tablespoons melted butter
Pineapple juice
6 orange shells
6 marshmallows

Beat the sweet potatoes until they are creamy and smooth. Add the salt, 1 tablespoon of melted butter and pineapple juice to moisten. Beat well until potatoes are fluffy. Fill the half orange shells with the mixture, brush the top with melted butter, and place under a broiler flame until the potatoes are a delicate brown. Place a marshmallow on the top of each sweet potato cup, and return to the broiler compartment until it turns a light brown. This goes well with ham.

Pineapple Cocktail

1 No. 2 can pineapple juice chilled
2 tablespoons strained lemon juice
5 mint buds
5 ice cubes

Pour the pineapple juice, lemon juice, mint leaves and the ice cubes in a shaker or into a jar with a tight fitting lid. Shake until a 2 inch froth is made. Serve in chilled fruit juice glasses.

FAMOUS WORDS OF ADVICE—

1. "GATHER YE ROSEBUDS WHILE YE MAY!"

2. "DON'T CRY OVER SPILT MILK!"

3. "A FRIEND IN NEED IS A FRIEND INDEED!"

4. "DRINK POSTUM, INSTEAD!"

IF YOUR doctor clamped down on your drinking coffee, we'll wager you'd raise a howl.

And we wouldn't blame you. For what's a meal without a good, hot drink?

So if your doctor has said, "No more coffee," take this tip—*"Drink Postum, instead!"* For Postum's delicious flavor, tantalizing aroma, and cheerful warmth persuade even the most fervent coffee-worshipper quickly to forget tabooed beverages. And Postum is such a satisfactory all-round drink that it is now the favorite in over 3,000,000 American homes.

Best of all, Postum contains *no caffein*—indeed, no stimulant of any kind. It is simply whole wheat and bran, roasted and slightly sweetened.

Easy to prepare—Economical!

Postum is delicious and easy to make—and economical (about ½¢ a cup). Postum is a product of General Foods.

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ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

ASK YOUR DOCTOR ABOUT POSTUM

MARY: I've just got to tell you about our wonderful find, Jane—it's Post's 40% Bran Flakes, the most delicious cereal you could possibly have for breakfast!

JANE: It sounds simply grand, Mary—and the way you two talk, it must be something extra special!

JIM: You bet it is, Jane! Post's Bran Flakes not only taste great, they have *two extra benefits* that help to keep you feeling fit . . .

First, Post's Bran Flakes provide just enough bran, a *natural* regulator, that helps protect you against sluggishness. People whose systems are irregular, due to lack of bulk in the diet, find Post Bran Flakes, eaten daily, a wonderful help.

Second, Post's Bran Flakes are a good cereal source of phosphorus, iron, Vitamin B_1 to help maintain appetite . . . and today, Post's Bran Flakes come to you at a NEW LOW PRICE!

A FEW MONTHS LATER . . .

JANE: I'm so grateful to you for telling me about Post's Bran Flakes . . . they're perfectly delicious, and just what I needed to help keep my system in order!

MARY: Yes, isn't it wonderful, Jane, that eating a grand-tasting cereal every morning can give such wonderful *extra benefits!*

IMPORTANT: Post's Bran Flakes, due to their bulk, are a *regulative* cereal. Constipation due to insufficient bulk in the diet should yield to Post's Bran Flakes, eaten regularly—as a cereal or in muffins. For cases not corrected in this simple manner, a physician should be consulted. Post's Bran Flakes are a Post cereal—made by General Foods.

HEALTHGRAMS

FROM ARTICLES IN THIS ISSUE

¶Damage to the skin from cosmetics is rather uncommon in view of the enormous amount of beautifying preparations used in this country at the present time. *See page 300*

¶If your child worries habitually, you had better take a look at yourself. Are you calm, contented and uncomplaining? *See page 308*

¶Cancer is far more securely rooted in the very nature of man than is any germ-borne ailment. *See page 316*

¶When one is 40, one seems to have a natural affinity for fat, so one should think twice before eating too heartily, for "come and grow old with me" beckons the fat that waits for 40. *See page 323*

¶Anesthesia may perhaps be regarded as America's greatest gift to the world. *See page 326*

¶Sometimes the "exhaust" from sneezing is powerful enough to project infective material many feet. *See page 329*

¶The home and school have a common goal. Working together, they can more nearly achieve their purpose in preparing youth to live happy and useful lives. *See page 333*

¶In recent years, bakers have made astonishing progress in improving the nutritive value and completeness of white bread. *See page 336*

¶Protein must always be supplied in the day's meals in order to provide material needed for repairing the wear and tear on body tissues and for building new tissues. *See page 346*

¶If the appetite for living is lost, life itself is without significance. *See page 376*

¶Educators are beginning to realize that the impression a teacher makes on her pupils is just as important as anything the teacher has to say about the subject in hand. *See page 382*

¶What a would-be suicide needs more than anything else in the world is sympathetic friendship and understanding. *See page 296*

¶There is a difference between worrying and carrying responsibilities: One is fearing the situation, and the other is solving the problem. *See page 308*

¶Far better than all the methods of cure are the steps parents can take to prevent cross-eye in their children. *See page 312*

DEADLY DISEASE NUMBER 3

(**Continued from page 319**)

than that of the breast or uterus, the first point of attack seemed logically to be these last two sites, with women to do the fighting. For that reason, the American Society for the Control of Cancer organized in 1935 a division called "The Women's Field Army Against Cancer." From the outset, the General Federation of Women's Clubs and the State Federations have formed a nucleus around which the program has developed. Other groups of organized women, as well as those who do not belong to any organization, have shared the burden. The progress made has been impressive and heartening.

In 1939 over 150,000 persons enlisted in the Women's Field Army during April, which two years ago was designated by special act of Congress as the Cancer Control Month in each year. There were at the same time more than 23,000 "officers" of different rank in the Field Army. Most of these women were and are still engaged in organizing the counties and communities under their jurisdiction.

From the beginning, the American Society for the Control of Cancer has insisted on one basic principle in all its popular educational activity: The program in each locality shall be supervised by an advisory or executive committee, the majority of the members of which shall be medical men or women. Nowhere is the program allowed consciously to proceed in any direction or at a faster rate than that approved by this executive committee. In the few instances in which the excess zeal of some individual has provided an exception to the established procedure, steps have been taken promptly to correct the situation.

The volume of educational work carried on in 1939 is amazing. Over 4 million pamphlets were distributed to persons interested in receiving them. More than 10,000 meetings to discuss cancer control were held. Almost a mile and a half of column inches of newspaper publicity were obtained. There were hundreds of radio talks, some of them over a nationwide network. Film strips, exhibits of charts, models and specimens were held in most states of the Union. By this effort, a real beginning has been made possible by the voluntary labor of tens of thousands of women who have welcomed a chance to save lives.

The whole project is, however, in the early stages. There is an immense amount of work still to be done. Thousands of towns, hundreds of counties and several states still need intensive organization. The old barriers of ignorance, delay and timidity must be broken down by the individual efforts of the increasing mass of those determined to replace these qualities which *kill* with the knowledge, promptness and courage that *save*.

One finds in each meeting one or more of the audience who come to the speaker at the close of the program to state that they or a friend have at that time one or more signs or symptoms that may mean cancer. The actual knowledge that one's efforts have started people on the road to prolonged life is a priceless reward to those who are participating in the work.

That is why those of you who are reading this article have a duty to perform. It is dual in nature. First, you should contact the nearest unit of the Women's Field Army or write direct to the American Society for the Control of Cancer at 350 Madison Ave., New York City, for free literature to provide you with permanent information about the signs and symptoms that may mean cancer and about the steps that you should take to decrease the likelihood of its occurrence. Second, you should volunteer whatever time you can spare to enlist in the Women's Field Army and to share in its work. You will be surprised what dividends in the durable human values it will pay.

Cancer can only be controlled when the public has the basic knowledge concerning it, which is now available. This, in turn, will lead to each individual's adopting toward the cancer problem a personal yet rational and unemotional point of view. Such a point of view has become accepted concerning automobiles. Automobiles kill and maim thousands of persons annually. Each of us is in danger every moment we are on the road or sidewalk; but in spite of this, we are not panic-stricken. We form the habit of taking reasonable precautions as a driver, a passenger or a pedestrian. Subconsciously we absorb these habits as a part of our daily life and use them to save us from potential tragedy. We must do the same about cancer. As long as we live, the menace of cancer exists. It can, however, be combated most successfully by the formation of habits of intelligent caution and alertness. In this effort the part which each of you can play is an absolutely essential element. Only *you* can give yourself and those dependent on you the best existing chance against cancer. The next step is up to you. Don't delay!

J'ACCUSE!

or

A Poem with Teeth in It

Father! Mother! Here! I wontia!
I've come back again to hontia!
You denied me orthodontia
When I needed it so much.

—***P. J. W.***

BOOKS ON HEALTH

The Building of a Nation's Health

By Sir George Newman, M.D. Cloth. Price, 86. Pp. 479. Illustrated. New York: The Macmillan Company, 1939.

In an easy and readable style the author traces the early foundations of health administration in England which began in 1832. This more formal and authoritative form of direct governmental responsibility concerning the state of the public health followed promptly a period of distress and gloom, which attended an invasion of cholera in 1831 that took the lives of more than 50,000 persons from a population of some 23 million.

It is interesting to note that "the beginnings of the records of disease in England take us back to the Anglo-Saxon Chronicle, the Benedictine order of 528 and the ecclesiastical history of the Venerable Bede, 731—all of them before the days of King Alfred." Between these times and the beginning of the pioneering stage of public health administration, the Justice of the Peace "played an active part, almost the only active part that was effective, in the growing application of science and administration to national health and well-being."

The author traces the advances in medical training and emphasizes the importance of a competent medical profession as an essential and primary condition of a national health system. The legislative acts pertaining to medical practice and the function of various medical administrative bodies are traced, and the work of these councils is evaluated.

In a work otherwise almost encyclopedic in some of its material, there is a paucity of comparative statistics pertaining to the changes that have been associated with the unproved public health program and advancing standards of medical education. The author does, however, complain about the slowness with which immunization against diphtheria has been accepted in England and points to the "enormous reduction in the incidence and mortality of diphtheria" that has been effected in many parts of America and Canada as the direct result of immunization.

The only bibliography is found in the footnotes which in some instances contain valuable details.

R. G. Leland, M.D.

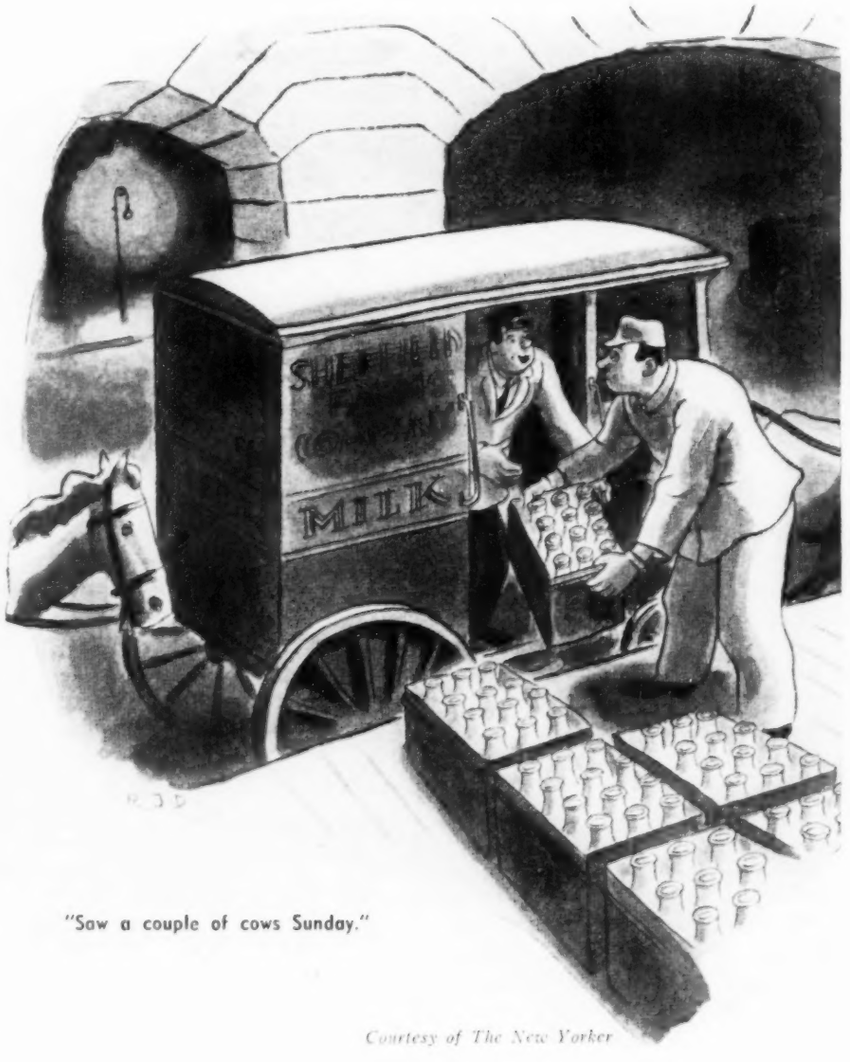
Twilight of Man

By Earnest Hooton. Price, 83. Pp. 308. New York: G. P. Putnam's Sons, 1939.

Through the superior intelligence and cunning of man and his ability to make tools, he has overcome the whole of brute creation. But these tools make it unnecessary for men to do much thinking, and now men have become slaves to their own mechanical devices. The solution of human problems is not in any further improvement of machines but in breeding a better race of men. We need to study the science of heredity and make use of its lessons.

Although Dr. Hooten believes that anthropology has the answer to many human problems, he thinks that most persons do not care to know the answers. The book is a rare combination of science and humor, and the fun in the text is supplemented by the author's own illustrations.

This is a book which one can hardly afford to miss. If you do not care about anthropology you will want to read it for its pure wit and cleverness. After you have finished reading it, the odds are that your appetite for anthropology will be so whetted that you will want to



"Saw a couple of cows Sunday."

Courtesy of The New Yorker

read more. Teachers of physiology and hygiene will profit from the long look into man's biologic past.

J. Mace Andress, Ph.D.

Wrestling

By E. C. Gallagher. Cloth. Price, $1. Pp. 91. Illustrated. New York: A. S. Barnes & Co., 1939.

As must necessarily be the case in a treatise on wrestling, the chief material in this little book is illustrative. There are nearly 200 photographs of wrestlers, showing various holds and defenses. Under each illustration is a brief but helpful comment in which such matters as conserving strength, anticipation and breaks are considered. These comments are practical and valuable, as should be the case, since the author is coach of wrestling at Oklahoma Agricultural and Mechanical College where his teams have been conspicuously successful.

This book should be of great help to the teacher of wrestling and should offer much to the individual wrestler, although it is difficult adequately to explain such material in print.

Dudley B. Reed, M.D.

Love at the Threshold

By Francis Bruce Strain. Cloth. Price, $2.25. Pp. 336. Illustrated. New York: D. Appleton-Century Company, 1939.

The bored reviewer, contemplating another book on sex, is due for a delightful surprise when he picks up Mrs. Strain's eminently sensible, practical, comprehensive, sympathetic and thoroughly motherly book on the three main phases of relationships between the sexes as they progress from childhood through adolescence to the adult state. Dating, romance and marriage each take up one part of the book. Each is treated adequately without being overdone. The author brings to each subject a fundamentally sound knowledge of the scientific aspects involved, plus a wide experience in living and a broad human sympathy and understanding.

As the next best thing to having the opportunity to confide in the author, as countless numbers obviously must have done, young persons should read this book. It radiates confidence in youth. It informs without boring, warns without frightening, inspires without preaching. If the author has perhaps minimized a trifle too much the difficulties and problems in modern motherhood, her chapter on this subject should be a wholesome antidote to much of the too coldly scientific, too blatantly sensational or too mawkishly sentimental matter which fills the literature on this subject.

The only point in the entire book which this reviewer would question is what seems a bit too much confidence in the so-called rhythm method of contraception. A careful reading of her passage on this subject reveals the necessary warning as to the fallibility of this method in certain women, but a casual or wishful reading is too likely to leave the reader with more confidence in "rhythm" than experience warrants at the present time.

The book deserves an enthusiastic welcome as a real contribution to the literature on sex.

W. W. Bauer, M.D.

The Psychology of Parent-Child Relationships

By Percival M. Symonds, Ph.D. Cloth. Price, $2. Pp. 228. New York: D. Appleton-Century Company, 1939.

This book is a study, as its title indicates, of psychologic relationships existing between parents and their children. Special attention is paid to the reactions of the child. Children are broadly classified into two groups, the accepted child and the rejected child. The accepted child is one who occupies a place in the home where every factor, or at least the predominance of factors, indicates that he is a wanted, valued and respected member of the group. The rejected child is one whose home environment is predominantly that which indicates him to be lacking in the emotional security which goes with acceptance. The accepted children tend, in a broad general way, to be well adjusted children, often "good children" in the sense that they do not create problems for parents, teachers and other adults; at least they do not create problems referable to aggressive behavior. This, as the author points out, is no assurance that they may not themselves face problems, often unrecognized. The rejected children, on the other hand, tend to be the aggressive types, the mischief makers, the stormy petrels, the limelight seekers. This is interpreted as a manifestation of insecurity; the necessity to prove to the world,

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but most of all to themselves, the importance of their personalities. Rejected children often come from families in which the parents themselves seem to have been rejected. The children of dominant parents fall into the submissive group but tend to become dominant parents themselves in time, as indicated by the family histories which the author has investigated. Excessive parental solicitude or "spoiling," which would appear superficially to be overemphasis on acceptance, is shown to be due in some instances at least to overcompensation for a fundamental attitude of rejection, plus a guilty conscience.

The book falls into three main divisions. First there is an extensive bibliographic review, with liberal use of quotations from the sources cited. Then there is the presentation of the author's own study, based on sixty-eight pairs of children, each pair consisting of one child diagnosed as accepted, the other diagnosed as rejected. The study was made with the aid of questionnaires filled out by the author's students graduated in past years. The small number of cases and the weaknesses inherent in the method of study are recognized by the author, who guards his conclusions with appropriate caution. The third division of the book represents the conclusions, suggestions for further study and general discussion. The divisions, it should be said, are in the mind of the reviewer and are not so designated by the author.

The book is long, involved and in the first two-thirds at least, heavy reading; the later parts are more readable. The reader's patience is, however, well repaid. There is much food for thought here. The information and suggestions should be of use to physicians, parents, teachers, deans, clergy, "big brothers and sisters" or any one else who stands in a guiding or counseling relationship to a child. W. W. B.

Intramural Sports

By Elmer D. Mitchell, Ph.D. Cloth. Price, $2. Pp. 324. Illustrated. New York: A. S. Barnes & Co., 1939.

This book is a manual for the staff members responsible for programs of intramural sports. The author is director of intramural sports and professor of physical education at the University of Michigan. The present edition is a complete rewriting of the original edition, which appeared in 1925. It briefly reviews the stages of the intramural sports movement in its development from formal gymnastics to the modern program of sports instruction on a required basis for all registrants in a college or university. It then proceeds in an orderly manner and with considerable detail and many tables, diagrams and excellent photographs to discuss organization, administration and interdepartmental relationships affecting the intramural sports program. Units of competition, program, time allotments, organization of participation, scoring plans for the group and the individual, rules and regulations, girls and women's programs, awards and special administrative problems are discussed in a comprehensive manner. The book is extensively documented and has an index which could have been improved. It is beautifully bound, printed and illustrated.

The section on classification of applicants refers, briefly, to the Frederick Rand Rogers physical capacity tests which have aroused so much discussion and controversy of late, the McCloy classification system and other simpler methods such as weight classifications; but it is silent on the subject of individual physical fitness aside from strength tests and does not refer to medical examination. While many of the rules and much of the advice given imply or connote the importance of ascertaining the physical fitness of participants before and during programs of intramural sports, the principal attention given to the subject is found in brief references to better health among "objectives" and to personal welfare in the discussion of "stages" of the intramural sports movement, plus a section on page 303, almost the last of the "special administrative problems." The medical reviewer will feel that this should be among the first and most important.

Attention to the problem of sports for the participant with special physical limitations should go beyond "proscribing" the more active sports for applicants on the basis of "a cursory examination of heart, lungs and hernia," which examination, the author holds, "is better than none." One might make out a good case for quite the contrary claim, to wit, that no examination is better than the false sense of security engendered by such a "cursory" examination. W. W. B.

Teaching for Health

By Marguerite M. Hussey. Cloth. Price, $2.25. Pp. 328. New York: Prentice-Hall, Inc., 1939.

The present volume is one which has been badly needed for some time. Whereas, there have been many texts on health education previously written, there has never been one which really approaches the problems of this school discipline from the standpoint of the expert teacher and from the standpoint of public health. Health education has progressed from pure gymnastics to a matter of making the school child and university student well aware of the factors in his diet, exercise and all the other activities in his daily life which have to bear on longevity and comfort during life. Methods of teaching, leadership organization, conditioning processes and modes of studying school life are all carefully described in the present book. The writer stresses surveying rather than parrot-like teaching. Numerous subjects are covered briefly, dealing with the means of developing school and home integration, technical methods of teaching and the use of motivating devices; good surveys are given of printed material and of the methods of measuring results, as well as how to report progress.

This is an excellent book for the physician who is interested in health education. It probably will surprise the physician not acquainted with modern methods when he sees how highly technical and excellently developed this part of the school curriculum has become.

LOWELL S. SELLING, M.D.

NOTICE

Books reviewed in this section should be ordered from booksellers or direct from the publishers. They may not be secured through HYGEIA or the American Medical Association, unless published by this organization. The following list contains the complete addresses where the publishers mentioned in these reviews may be reached:

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A. S. Barnes & Co., 67 W. 44th St., New York City.
The Macmillan Company, 60 Fifth Ave., New York City.
Prentice-Hall, Inc., 70 Fifth Ave., New York City.
G. P. Putnam's Sons, 2-6 W. 45th St., New York City.

DIET and HEART DISEASE

(Continued from page 325)

should think twice before eating too heartily, for "come and grow old with me" beckons the fat that waits for 40. You indeed "dig your grave with your teeth."

Think, too, how difficult it is for the women of 40. Such a mother I know prepares the meals for a family of six, all with lusty appetites, and they of course appreciate her skill. She has a high blood pressure of 200, with a weight to match. Obesity, by the way, often accompanies high blood pressure. It is hard for her to say "no" to her own good dinners. Yet on account of her weight, she cannot comfortably exercise as much as she should, and she also has the sympathetic heart that goes with high blood pressure; so her weight remains stationary.

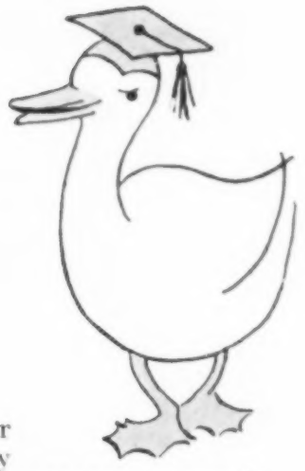
A certain professional man leads a busy life; his pressure is up, and his stomach is out and down. I fear he will be "down and out" if he does not learn when and what to eat. He really has a double difficulty, for he belongs to that great army of individuals who are allergic or sensitive to certain foods. His skin hoists a red flag with a rash, so he at least knows when he has eaten well but not wisely. He knows what disagrees with him and omits it from his dinner.

There are many instances of diseases other than syphilis that complicate heart trouble, and this often makes the diet more of a problem than if one only had to think of the heart ailment. Take, for example, Mrs. Jones, who has such a sensitive gallbladder that, while thin, she still must limit her fats. A careful dietary has to be planned by her doctor and her weight checked by him from month to month, while Mrs. Jones watches her pounds from day to day.

Then there is Mr. Brown who has but one kidney. He must limit the fats, the greasy foods and the fluids as well.

In the sixth age of life, from about 60 to 70, how often do we see the "sixth age shifting," with the "shrunk shank" of Shakespeare's time, the thin, spare type of our time? Here the heart ailment may be accompanied by heart failure, as well as the encroaching senility and "second childishness," which now

(Continued on page 367)



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WHY MAN COMMITS SUICIDE

(Continued from page 299)

sands of women and even young married girls died the horrible death prescribed by this strange tradition. It even became an absolute duty of the wife so to die, and the custom became so firmly encysted in the mores of the people that women have been known to try various kinds of subterfuge to defeat the restraining efforts of western officials who have tried to prevent their self sacrifice. The significant point is that, with no other socially-approved mode of behavior established, a bereft wife simply felt that there was no possible alternative.

In some South Sea islands a sort of suttee has been found in which the widow strangles herself or is buried alive with her deceased mate. This practice existed also among certain early American Indians.

In African tribes natives have been known to practice suicide for motives of revenge or even to shame their enemies. In one such tribe men were known to hang themselves as punishment against their slow-paying debtors—a practice which does not promise to become sufficiently widespread to provide encouragement for insolvent Americans.

Another well known oriental institution is hara-kiri, less widespread now than formerly. The literal translation of this word offers little for esthetic appreciation. It means "belly-cutting." And that is exactly what it is. In cases of insult to the nation or ruler, suicide by hara-kiri is performed as a ceremonial rite in protest; and in case of military defeat, it has been practiced by whole regiments in preference to the disgrace of capture. In many instances the act has been obligatory. In its later development it acquired certain ceremonial attributes, sometimes being attended by official witnesses and, on occasion, being widely commended and praised. The ceremony is fixed by tradition. The man sits cross-legged on the ground. Almost invariably he faces an image or picture of his emperor or leader. He uses a sharp knife, which may be presented to him with considerable formality. The blade point is pressed into and drawn across the lower part of the abdomen, then upward. Just like that.

After this self-performed major operation, the man folds his arms and bends forward, allowing his intestines to fall out.

A less common but more spectacular oriental practice is the shinju death, a double suicide by lovers who have been prevented from marrying. The chief modes seem to be death by leaping from high cliffs or into volcanoes. This sensational act has been cited authoritatively as an explanation of the unusually high percentage of women among the suicides of Japan.

Other elements, including religious fanaticism, enter into the shinju custom. It has, therefore, been difficult to curb. The recent popularity of Japan's "suicide mountain," Mihara Yama, as a site for executing the death pact is well known. Curious idlers have gathered there in the hope of witnessing the next spectacle, and refreshment stands and other concessions reputedly have thrived on the trade of these morbid crowds.

Numerous evidences show that women who kill themselves are more inclined to jump from windows than are men.

People who drown themselves seldom select stormy waves. Quiet, placid waters more frequently murmur the requiem. It is often a beautiful setting that is chosen for the final exit of this last act.

The hope of a new scientific treatment of the problem of suicide is a bright contrast to the attitude of our forebears of a few generations back.

For those who experience the terrible nightmare of melancholia, it should be urged that, whatever the feeling may be now, it will positively at length abate. Mental unhappiness, when it produces melancholia, is like any other sickness. In fact, it is a sickness, despite its lack of overt symptoms. If more of its victims understood it and knew that it would absolutely become less intensely unbearable, there would be fewer suicides. One may wake up night after night, assailed by an overpowering misery which engulfs him as might a fever. Failing to diagnose his case, he may desperately ask himself, "Will this never end? Shall I never again be able to feel happy?" And finally, weary and exhausted by lack of sleep, victim of an inexplicable feeling of sheer hopelessness, he may resort to the gun or the knife. To him, speaking sympathetically, some one should say, "Wait! Give yourself two or three months. In that time, make some close friendships. Establish a routine of living, and orient yourself in a definite plan of work, however simple it may be. Force yourself to seek the company of another person. It may be like taking medicine to do this at such a time, but medicine has saved lives before. If you have failed in business and feel disgraced, try to start over *on a scale so simple that you are sure of success to a modest degree.* This will hold you until the three months are gone. By that time your changed mental outlook will have done the rest."

Today we are slowly realizing that we cannot know all a man's thoughts or motives, the extent of his suffering or his capacity for unmitigated misery. We cannot read his emotions or probe the depths of his inner self to discover the spirit walking on some dangerous reef. The paths by which he reaches the darkest of dark rivers may be so subtle as to elude our most adroit analysis.

An instance is recorded of a woman who prevented her friend's suicide by faking despondency and unhappiness on her own part, requiring encouragement and friendship. Thus she took the woman's mind off her own troubles and gave her a new incentive for buoyant living.

A business man who had lost everything in the stockmarket crash some years ago was on the point of taking his life. Faced with disgrace and failure, he could see no other way out. But his wife, complaining of ill health, urged that they move to a secluded place in the country. They moved; and there, feeling the quiet surge of life in green fields and grass and trees, the man became a different personality. His whole interest had been shifted, and the direction of his vision had been changed. New incentives, together with success in a small undertaking, had wrought the miracle.

And so, in thousands of cases, a life might be saved if only a new point of view and a new incentive were provided.

DEBUNKING COSMETICS

(Continued from page 302)

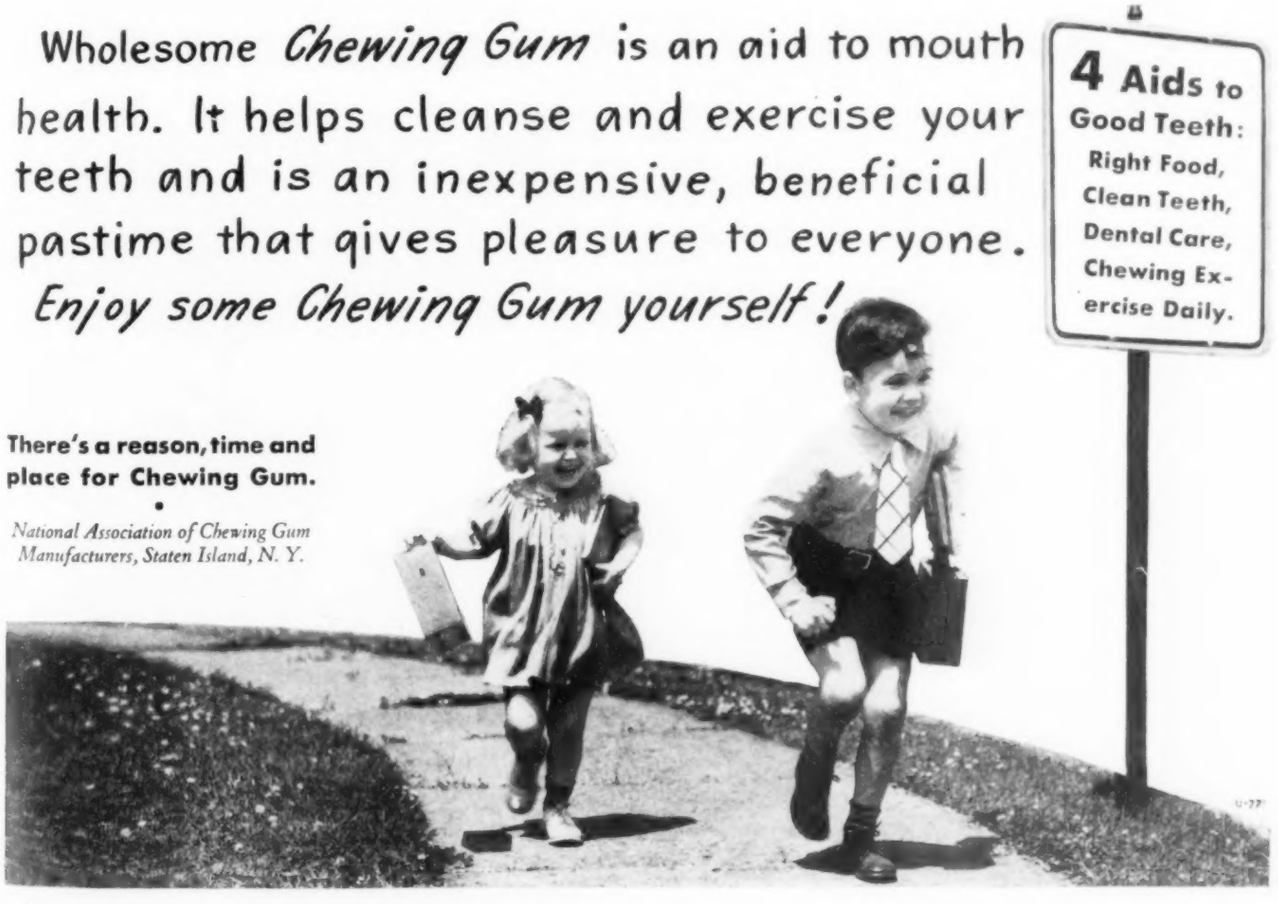
advertisers. We also know that some of the firms that do a lot of advertising have no technical background whatever. Some of them never employed a chemist of any description. So what are the advertising agencies going to say to women who follow their advice and then find that nationally advertised cosmetics are not all so hot?"

Preparations for removing superfluous hair include chemical depilatories, shoemaker's wax, which is applied and then forcibly removed, and sand-paper devices containing carborundum [a substance ranking next to the diamond in hardness], which grind off the hairs. All these are, as a rule, safe and effective, but their action is only temporary. Any claim that they remove hairs permanently is fraudulent. There is only one safe method of removing superfluous hairs permanently: electrolysis. This method requires a skilful and experienced operator with good vision, a steady hand and infinite patience. The x-rays, although of great value in treating many diseases of the skin, are distinctly contraindicated for removing superfluous hairs. No reputable physician uses them for this purpose. This agent is, however, employed by certain advertising concerns whose activities constitute a most shameful form of quackery. Many women would have been saved from the disastrous results which often follow such treatment, if they had first consulted their family physician.

Freckle removers constitute another type of cosmetic preparation that is essentially fraudulent. Temporary freckles disappear largely after summer; permanent freckles cannot be safely removed by lotions or creams.

The term castile soap, according to the U. S. Pharmacopeia [pharmaceutic index], refers to a soap made of olive oil. A court decision a few years ago said that castile soap need not contain this ingredient. Apparently any toilet soap that is not scented or colored may now be sold as castile soap, although the mere name does not in any way guarantee its purity. Even soap made of olive oil is not necessarily pure, unless it is made by a reliable manufacturer. Some persons have a notion that a transparent soap must be unusually pure. This is not always true, as such soaps require special handling in their manufacture and may be less reliable than those which are opaque. The buyer should beware of freak soaps and those for which extravagant claims are made. Medicated soaps have only limited value at best, in the opinion of the medical profession.

The vast majority of powders, creams, rouges and lipsticks seldom do any harm. The manufacture and sale of cosmetics is of course a legitimate business, and one which is at present going through a transitional phase in its advertising; from the frequent misrepresentations, and the almost universal exaggerations, federal law is requiring it to adopt a more authentic and common sense level of appeal.



QUESTIONS AND *Answers*

Hyoglossus Muscle

To the Editor:—I would like some information regarding the hyoglossus muscle in connection with the voice. Does the hyoglossus muscle have any influence on the quality, volume and range of the voice? If it does, how does it function in relation to the other muscles of the vocal organ?

F. B., California.

Answer.—The hyoglossus muscle extends from the hyoid bone to each side of the base of the tongue. Its chief action is to flatten or depress the base of the tongue. It has no control over the vocal cords and is not concerned in pitch or initial volume of sound. Since it has to do with movement of tongue, it can modify the size and shape of the mouth cavity and aid in converting the voice sounds into what we recognize as speech. When the hyoglossus is paralyzed, a person is said to speak in a more muffled tone.

Reaction Time in Men and Women

To the Editor:—Do statistics prove that the average man reacts just a little more quickly than the average woman when something happens suddenly?

E. C., Pennsylvania.

Answer.—It appears to be true that the reaction time in man is slightly less, on the average, than in women; but the difference is not great and is subject to certain qualifications. One must distinguish between different types of reaction time. For simple reactions (for example, the pressing of a button when a light is flashed), about 70 out of 100 men will react more quickly than women. The difference is from ten thousandths to twenty thousandths of a second. However, individual differences are consistently greater than sex differences, so that the quickest woman may react as fast as the quickest man. For "choice reactions" in which discrimination is required, the same remarks apply, except that here the evidence for sex differences is less marked.

If one is discussing reaction time in an activity involving motor skill or high energy expenditure, the average difference between the sexes becomes more marked. If a group of men, matched with a group of women, are set to learn a motor skill such as telegraphy or typing, the speed of reaction in the men is greater and increases more rapidly than in the women. Given ample training, however, the women may more nearly approach the men. In this matter, individual differences are again important. Furthermore, women surpass men in certain fields; for example, in language functions women exhibit a shorter reaction time than do men, while men are superior in mathematical functions. From this short discussion one can see that generalizations are extremely dangerous and apt to be true only in part.

For those who are interested, we will be glad to recommend further reading material.

Resting on the Floor

To the Editor:—Is it harmful for primary school children to rest on the schoolroom floor on their own blankets? Some believe the draftiness and dust would be undesirable.

G. B. G., Connecticut.

Answer.—If it is desirable for primary school children to have rest, it can be well accomplished by having them lie on a hard surface from which they cannot fall. When they are at rest, it is presumed that there is quiet and therefore little dust. While there is probably no great danger either from draftiness or dust, nevertheless the procedure seems clearly open to objections.

Detroit Public Schools

In motor skill, such as typing, the speed of reaction in women is slower than in men.

The danger from draftiness could probably be overcome. However, in any room where there is ventilation, be it in school or home, there are noticeable air currents near the floor. The draft thus created may be conducive to development of colds.

It does seem distinctly objectionable to lay a blanket on a floor and then use that bianket repeatedly after that. Floor dust is invariably associated with micro-organisms of all sorts, as evidenced by a marked increase of bacteria counts in air following sweeping. It is hard to see how portions of the blanket contaminated with such organisms would not come in close contact with the child's respiratory tract. In short, while the procedure may not carry great danger, it does carry some and has withal a somewhat unesthetic quality.

Use of Drops in Eyes

To the Editor:—During an eye examination I asked my oculist whether a person with a normal eye could read perfectly when his eyes were dilated. He answered yes. I was later told that I had misunderstood him, as that statement was not correct; that the only purpose of dilating the pupils was to see whether any disease was present, to examine the inside of the eyeball and that this could be done without dilating the pupils.

Will you please tell me about fitting glasses? R. G., Illinois.

Answer.—Eyes may be examined by an oculist with or without dilating the pupils with drops. Drops are always used in young children if there is evidence that glasses will probably be needed. After childhood, some oculists still use drops on all patients up to the age of 40; some use them only in selected cases where they think the use of drops would give information not available without them.

The purpose of drops when they are used is not so much to dilate the pupil as to put the eye completely at rest so that the full error, if any, may be discovered. When the eyes are under the influence of drops, they are unable to focus at all, so even if the error is not large, vision may not be perfect without lenses. It is true, therefore, that if the vision is perfect when the drops are in the eyes, there is no error, and the eyes are normal.

No one of the different methods of examining eyes for glasses has intrinsic merits which make it definitely superior to any other method. The important thing is the training and experience of the oculist, his interpretation of the findings and his judgment in deciding what is to be done.

Ears and Idiocy

To the Editor:—Are abnormally low ears a sign of idiocy or other mental deficiency? J. S., New York.

Answer.—Many writers on mental deficiency have commented on the relatively high percentage of ear defects found in low grade mental defectives. In Brousseau's monograph on mongolism it is stated that abnormal ears are usually frequent in Mongolian imbeciles. In an extensive study by Neil Dayton, it was found that physical anomalies of all sorts were more frequent among children of low intelligence than in normal children. However, so far as ears are concerned, there is no special deformity that indicates low mental development. The ears may be either unusually large or unusually small or may present deviations from normal structure; but abnormal size and form of the ears are not rare in normal children, and the presence of small ears at birth would not afford a strong presumption that the child would be mentally deficient.

White Rats for Experimental Purposes

To the Editor:—Why is the white rat used so much in medical experiments? When was it first used? What are some important medical discoveries that have resulted from experiments with white rats? F. G., Iowa.

Answer.—The white rat is particularly useful for experiments in nutrition. This is because the rat is an omnivorous animal, much like man. The rabbit is a vegetarian, and the cat is largely carnivorous; but the rat will eat either plant or animal food. Furthermore, the white rat breeds rapidly and has large litters several times each year. As a result, the medical research investigator can secure large numbers of baby rats for experi-

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mental use. The small size of the rat means that it is an economical animal to maintain. The mouse also is useful for many of the same reasons that apply to the rat. The mouse, however, is a little more difficult to handle and not so easily tamed as the rat.

The first rodents which seemed to have been used for experimental purposes were ordinary house mice. Later the white mouse was used, but only to a small extent in some of the European laboratories in the latter half of the nineteenth century. The use of the white rat in experimental medicine to a general extent may be attributed to the work of Prof. H. H. Donaldson at the University of Chicago and later at the Wistar Institute of Philadelphia. He studied thousands of rats and measured their normal growth and development and established standards for the healthy animal. Other investigators interested in abnormalities from the effects of diets on body organs and systems could then compare their results with the standards of normal animals developed at the Wistar Institute. The extensive use of the white rat in nutritional investigations is largely the result of the work of Professors T. B. Osborne and L. B. Mendel at Yale University. They obtained their animals originally from the colony of the Wistar Institute.

Nearly all the vitamins, with the exception of vitamin C, were discovered by investigations with rats. Vitamin C is the antiscorbutic vitamin, and its discovery was accomplished by means of feeding experiments with guinea pigs. The guinea pig develops scurvy just like the human being, but the white rat does not. This emphasizes the importance of using different kinds of animals for experimental investigations. The discovery of nicotinic acid, for example, could not have been accomplished if it had not been for the use of dogs in feeding experiments.

Infant Feeding

To the Editor:—For over a month we have tried to teach our 17 month old baby to drink from a cup or glass instead of a bottle. We have failed completely, and as she was getting nervous and thin we have returned to two bottles a day of milk and one of orange juice. Now I am told that letting

her have a bottle so long will affect the shape of her mouth, also the roof of her mouth and her teeth. Is there any truth in such statements?

M. W., Ohio.

Answer.—Prolonged sucking on the nipple generally tends to affect the normal development of the young child's mouth. However, in former years in America, and even today in some foreign countries where nursing is often continued late into childhood, many children escape mouth deformities. There is little cause for alarm over the case in question. It seems to be more a problem of discipline than of nutrition. If the mother has made up her mind to discontinue bottle feeding, she should by all means adhere to this decision unless in the opinion of her physician the child's general condition does not warrant such insistence. A child who is healthy will not carry his resistance to the point of self injury. He will yield as soon as, but no sooner than, he recognizes his mother's determination of going through with her plan.

All bottles should be withdrawn immediately. If milk is refused from the cup, there should be no scolding or arguing, pleading or apologizing. The milk may be given in the form of soup or mixed with practically every other food that the youngster receives. An ounce or two of milk may be offered to him from a cup at definite periods once or twice a day. If he refuses it, again there should be no fuss. If he takes the small amount and asks for more, another ounce may be offered without remark. Gradually he will get into the habit of accepting his food in the regular manner. During this training period, the major part of his allotted quantity of milk should be mixed with the more or less solid foods that he is receiving at meal time.

Orange juice should never be fed through a nipple. Even an infant 1 month old will readily accept the juice from a teaspoon, and at 2 months many babies take their orange juice from a cup.

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a three-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed. Anonymous letters are ignored.

Springtime for Milady

SERVICE Luzier's CUIQUE

For most of us this has been a long, cold, wintry winter. We welcome Spring's approach with a feeling of release and gladness. Our thoughts just naturally turn from winter cast-offs to new spring togs and bonnets and everything that goes with them.

At this time of year, when Loveliness is the leading motive, fine cosmetics and perfumes assume a new and exciting significance. Milady seems to take a keener interest and added pleasure in her personal appearance. Spring ensembles call for harmonious makeup. And how much just a touch of an exquisite perfume adds to the completeness of those new ensembles!

As a spring tonic for Milady we recommend a Balanced Beauty Service selected to suit her individual requirements and preferences, with purpose to present her at her sprightliest, her loveliest.

The ladies who bring you Luzier's Service are qualified to assist you with the selection of suitable Luzier preparations and to show you how to apply them to achieve a lovely, natural-looking cosmetic effect.

Preparations by Luzier will be exhibited at the National Convention of The American Medical Association (Booth 344), to be held in New York City this coming June.

LUZIER'S, INC., MAKERS OF FINE COSMETICS AND PERFUMES

KANSAS CITY, MO.

CONQUERORS OF PAIN

(Continued from page 328)

does not use a sufficient volume—the patient whose tooth he extracts revives before the operation is over and screams with pain. "Humbug," the medical students shout. That cry is the doom of Horace Wells.

Wells is a sensitive man. He feels himself disgraced, and he returns home discouraged. He continues to administer nitrous oxide in private practice for some time but eventually gives up dentistry altogether. Crushed, beaten, overwhelmed by his sense of defeat, Wells dies by his own hand three years later.

3. The Rediscovery of Ether

Pain is rampant. With a meek and tearful look a young, pale woman is brought into an operating amphitheater filled with austere looking men. Opiates and stimulants have been given her freely in an attempt to mask the pain which faces the victim. Kind, cheering words flow over the young woman. She is asked to be calm, to keep quiet and still. Heavy hands hold her struggling form as the surgeon grasps a scalpel. A clean cut across the thigh, and a pool of crimson appears. Agonizing screams flood the amphitheater. The young woman struggles and attempts to leap from the table. The more powerful of the spectators throw themselves on her and pinion her limbs. Shrieks eat their way into the walls of the room. At last, the operation is finished. Prostrate with pain, weak from her exertions and bruised by the violence used, she is brought to her bed in the wards.

As William Morton walks slowly out of the amphitheater, his heart is heavy, his ears suffused with the moaning and shrieks of the patient. He recalls the unhappy fate of his old teacher and friend, Wells. He is determined to succeed where Wells failed. He arrives at home and tells his wife, "My dear, the time will come when I shall banish pain from the world."

Although he is a practicing dentist, Morton is enrolled as a medical student at the Harvard School of Medicine. One of his professors is a chemist named Jackson. Morton casually mentions his problem. Jackson suggests that he try ether instead of nitrous oxide. Morton listens attentively and acts as if he had never heard of ether. Jackson explains its properties, shows him ether and the apparatus in which it is administered, and tells him where it can be procured. Morton is bold, shrewd and practical. He is thinking of a patent.

Morton experiments on himself and on the family dog, "Nig." Finally he tries ether on patients and uses it with success as an anesthetic for the extraction of teeth. One day he decides that he is ready for his great venture. He will use ether for a major surgical operation. He asks Dr. Warren, the venerated chief surgeon of the Massachusetts General Hospital, for permission to make the test. The request is granted.

On the sixteenth of October 1846, the gallery of the operating theater is crowded with incredulous medical students and skeptical physicians. The patient is brought in by the guards whose duty it is to hold the struggling and shrieking patient. The surgeon is dressed in formal morning clothes, the assistants in less fastidious attire. The surgeon waits imperiously. A quarter of an hour passes, and Dr. Warren becomes restless. Finally he remarks cryptically, "As Dr. Morton has not arrived, I presume he is otherwise engaged." His voice conveys the idea that Dr. Morton is not likely to appear. The audience suppresses a faint snicker.

He picks up one of the instruments, nods to the assistants and turns to the shrieking patient. He is about to proceed with the operation. At this moment Morton enters: He has been delayed by waiting for the completion of a new ether inhaler. Warren turns to him and says, "Well, sir, your patient is ready." Adjusting his apparatus amid the silence of the spectators and surrounded by unsympathetic and derisive faces, Morton calmly administers the anesthetic. In a few minutes he looks up at the surgeon, "Dr. Warren, *your* patient is ready." Dr. Warren steps forward and makes his first incision through the skin. The patient neither struggles nor cries out. The operation is continued and a large tumor removed. Still the patient gives no sign of pain. With the completion of the operation Dr. Warren turns to the audience and says slowly and deliberately, "Gentlemen, this is no humbug."

4. The Discovery of Ethylene

The year is 1908. The city is Chicago. A gray haired, hawk-faced gardener walks deliberately through his flower-laden hothouse, proudly surveying the carnations which have earned for him a reputation throughout Chicago. These are fine and uncommon carnations which he sells to retailers at a good profit. He pauses to cut some of the flowers. Mournfully he shakes his head. A group of the carnations are withered. Others are dead. "This is peculiar," he mutters to himself, "I wonder how it happened." Day after day the same thing occurs. "What can be doing it?" he asks himself. But it remains an unsolved problem. He does not know what to do.

He consults his assistants. The assistants consult one another. No one seems to know why the carnations die as soon as the buds open. Weeks go by. Hundreds of flowers perish. The riddle remains unanswered. One day the gardener detects a strange smell in the hothouse. It is a subtle odor, not readily discovered. Cautiously, he traverses the length and breadth of the hothouse, poking his nose into every nook and corner. At last he finds a leaking gas pipe. "This must be the trouble," he exclaims gleefully.

He tests his theory by placing a freshly bloomed carnation over the spot where the gas appears to be escaping. The petals promptly close. The carnation seems "asleep." Walking out of the hothouse, the gardener exposes the blossom to the freshness of the crisp, outdoor air. The petals "awaken" and resume their former position. "I have it now," the gardener shouts joyfully. He reenters the hothouse and holds a second flower over the leak for a longer period of time. Again he exposes the carnation to the outdoor air. This time the flower does not "awaken." But the gardener has solved his problem. He has the leak plugged, and his flowers grow as usual.

In an adjoining section of the city, two University of Chicago botanists, Knight and Crocker, learn of the carnations which accidentally had been put to sleep in a hothouse. Their curiosity is aroused, and they interest them-

selves in what has been a casual observation made by a worried gardener. In their laboratories they make a detailed study of the carnation. Endless days are spent in following the life cycle of this flower. They also investigate the soporific influence of ordinary illuminating gas on living vegetable matter. Their findings are startling. The botanists mention their work to Dr. Arno B. Luckhardt and to his associate, Dr. Carter. Luckhardt and Carter proceed along a new direction. They discover that animals can react to the illuminating gas in the same fashion that carnations do.

Hundreds of experiments are done. Months go by. Elaborate notes are compiled. And there are ever frequent checks on the validity of their findings. Luckhardt and Carter dilute coal gas with oxygen in various proportions. They have a constant goal in mind: Which ingredient of the complicated mixture of gases has the sleep-producing effect? Finally their efforts give birth to a new synthetic gas which causes both sleep and anesthesia. It is like ether, but it does not have any of the disagreeable effects of ether. The new gas they name ethylene. In 1923 Luckhardt and Carter published their experimental evidence in *The Journal* of the American Medical Association. Physicians greet the new anesthetic with curiosity and eagerness. Within a short time the new anesthetic proves of tremendous value in surgery. A few years elapse, and ethylene takes its place beside ether and nitrous oxide as a remarkable conqueror of pain.

DIET and HEART DISEASE (Continued from page 359)

may demand again the chief food of the infant, a milk diet. This milk diet may be the temporary diet or mainstay of a failing heart. Such a diet must be supervised by the doctor until the time comes for solid food again, when the sufferer is literally bridged over by diet. He has a renewed lease on life once more.

On the heavy side, one often sees women in the sixth age of life who seem like "ships that pass in the night." What do they eat and when? Follow them into some soda fountain. Here you see them momentarily satisfy lost hopes, diminishing pleasures by an ice cream soda, a sundae with its crest of whipped cream dotted with nuts or a rich pastry.

By contrast, we think of many of those spruce and valiant ones of this "last scene of all" and heartily disagree with our poet. We all know these fragile ones of 70 years or beyond, who seem more eager for life than their next younger generation marching behind. In such as these we have a really modern denial of Shakespeare's picture. Instead of "sans teeth," they have good false ones which are better perhaps than those that have gradually departed; "sans eyes," very seldom! They see much and well! For cataracts, a common affliction of old age, are often aided by surgery. No, again, on "sans taste," for the age of wisdom has taught them how to cherish their years by enjoying sane diet. Occasionally, they might spend a few days in bed with a good book, the radio and light appetizing meals, and their renewed vigor will start them off again on a new spurt. More frequent meals, say five a day, with the heaviest meal at noon and a little less meat is the best common sense advice for those who are 80 years young!

Modern science has indeed eased our "entrance" into life and postponed our "exit." We have extended the span of our years far beyond the imagination of even Shakespeare.

CANCER CONTROL MONTH

The American Society for the Control of Cancer through organized units of its Women's Field Army will conduct during April its fourth annual campaign of cancer education. President Roosevelt will issue a proclamation calling attention to the need to "Fight Cancer with Knowledge."

Working under the supervision of physicians and other experts, women are the leaders and organizers of the fight against cancer. A beginning has been made, but it is only a beginning in this peacetime war. Approximately 150,000 men, women and children were killed in 1939 by cancer—the third most deadly disease (see page 316).

NOISE! Don't let backfiring taxis, trucks, and neighbors' radios disturb your vital rest! "Nods" in your ears will make you think you're in the country. Soft, porous latex—one end impregnated with a neutral wax. Safe, flexible, comfortable. Box of 3 pairs (lasts 6 months) $1.00.

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THE CARE OF THE TEETH, by W. M. Gardner. Causes and prevention of dental decay and pyorrhea; dentifrices and mouth washes; brushing-with-pressure method; cooperation with dentist. 27 pages. 15 cents.

TAKING THE CHILD TO THE DENTIST, by William M. Gardner. 4 pages. 5 cents.

WHAT THE MOUTH CAN TELL, by Louis Cohn. 4 pages. 5 cents.

DENTAL NOSTRUMS AND THE PUBLIC HEALTH, by Samuel M. Garden and Eleanore B. Dufour. A reprint from Hygeia of three articles on the promotion of dental nostrums and dentifrices. 32 pages. 10 cents.

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BABY STEPS OUT

By MORTON HACK and DOROTHY WEINER

"Oh look! Isn't he the cutest thing?"

"Maybe so, but his mother certainly can't have much sense to let that child lie there and kick around with no shoes or stockings on."

The two women talking were mother and daughter, the younger one herself the mother of a 2 month old daughter. The first speaker continued with the subject occupying her mind. "Well, my doctor has told me never to put shoes on Judy till it's time for her to walk, and then I should select them carefully."

Such useless arguments were repeated at intervals until the day Grandma, Mamma and Judy went shopping for baby's first shoes. Baby, as every normal infant, had passed the crawling stage without the hindrance of shoes, bootees or what have you. Now, without unwise encouragement from the family, she had progressed to the stage where, with the assistance of numerous conveniently sized tables and chairs, she was standing and walking, thus ready for her first shoes.

Grandma thought it silly to "lug the baby all the way down town just to get a pair of shoes."

"I don't see why you can't get Judy's shoes without all this fuss and feathers. Certainly you've seen her feet enough times to pick out a pair of shoes that will fit her."

Daughter was firm. "Mother, it isn't fair to Judy to use guesswork in the fitting of her shoes. Besides, Dr. Jones told me to take her down to this place where they understand children's fitting!"

"Land sakes, when I was a girl we never had our shoes fitted. Pa always went into town and shopped for all of us," Grandma protested.

"Yes," daughter replied, "and look at your bunions and corns."

Grandma snorted but subsided for the time being.

When they reached the store, a clerk came forward to assist them, and placed Judy in an amusing little chair which gave forth a tinkling melody. Numerous shoes were brought out to try on. All were, according to Grandma, more for strength than for beauty. Hence, the skeptical question, "Why should she have high shoes? Those cute little strap slippers look better, and besides, she'll only wear these for dress up. She still has a pair of perfectly good soft-soled shoes she's never worn."

"Well, Madam, any child is apt to outgrow a shoe before outwearing it," the salesman said. "So it's unwise to expect shoes to be used until the soles are gone. And, high shoes are preferable because the lacing serves as an extremely mild brace around the sagging upper portion of the ankle; it also gives support to the arches until they are formed."

"Why, any baby is born with arches."

"Pardon me, Madam, but the new baby is born with pads of fat which gradually become arches as the muscles through exercise replace the fatty tissues."

Meanwhile Judy's mother was watching the fitting and asked,

"Why push her foot so far into the shoe?"

"That must always be done to see that she doesn't curl her toes up. To do that, always see that her heel touches the heel of the shoe."

"Aren't these shoes too long? Wouldn't a smaller size be better?" Mother asked.

Grandma interposed, "If her shoes are too long, her feet will grow all out of proportion!"

"No. You see, baby's feet grow rapidly and almost in spurts. The longer shoe is better. Then, her big toe comes well before the point where the upper of the shoe begins its downward curve to meet the sole at the tip."

"How can you tell width in an infant's shoe?"

"Well, a shoe is too narrow if there is tension against the upper, produced by pressure of the foot against it. It is too wide if there is an excess of sole right along the middle of the foot at its outer border."

"Do you always fit both shoes?"

"That's very important. You have no idea how many people have bunions, ingrown nails and corns on their left foot because it was habit to fit only the right foot. Frequently the left one is longer. All that trouble can be avoided by always fitting both feet."

"If you think these are the proper shoes for her, I'll take them. What are you doing now?"

"I'm flexing the soles at the ball."

"Why not buy flexible-soled shoes then?"

"They may be all right in some cases, but we prefer to provide Judy with the protection of firm-soled shoes. However, we flex the soles at the ball in order to allow her to gain the chief virtue of flexible soled shoes, and at the same time she has the support of the others."

"I'm sure you're very helpful. I'm so glad I brought Judy here."

The fitter continued, "Here is a pamphlet on the care of shoes in which you'll find considerable information you will need. I'd also advise a pair of shoe trees. They're adjustable and can be used for some time."

"I thought shoe trees were for shoes that had gotten wet, and Judy won't be playing outside for some while yet."

"Shoe trees keep the toe-cap raised," said the fitter. "Also, in cleaning, shoes frequently become wet. Slow natural drying with these trees retains the pliability of the leather and prevents warping or curling of the sole."

"In that case I will take these as well," Judy's Mother said.

At that moment the fitter was called to the telephone, and in his absence Judy's mother noticed a framed slogan on the wall.

"Look, Mother, they wouldn't even have sold us shoes for Judy if we hadn't brought her with us."

Grandma read the sign:

A PLEDGE OF SERVICE

Growing Feet Deserve Proper Fitting

This store pledges.....

That every pair of children's shoes we sell will be carefully fitted by a competent shoe fitter. Children in the ages of vigorous growth may show increases in foot-length of a full size in a six months' period. Shoes sold over the counter, without proper fitting, may cripple or injure the feet of growing Americans.

Therefore, in this store, we prohibit the sale of children's shoes without fitting service.

"That's just for show. No business firm is going to refuse your money." Grandma retorted, "Wait, I'll ask him."

As the fitter returned to his task of properly fitting little Judy, Grandma asked, "Young man, what's the idea of that silly sign? You know as well as I that you wouldn't refuse a sale just on account of that pledge."

"Madam, it is a principle with us and with all members of the National Association of Shoe Retailers who signed the pledge. Last week we refused to sell seven pairs of children's shoes because the parents wanted to guess at the size or have us go by the old shoes."

"Well I never!" exclaimed Grandma, now almost convinced.

"The store will send you a notice in three months so that you can bring Judy in for a check-up on the fit of the shoes."

"Very well. Thank you for your courtesy."

Hardly had they left the store when Mother turned to Grandma.

"There, I told you this business of Judy's shoes was a serious one."

Grandma acquiesced.

"Well, I never would have believed it, but I suppose there is something to it. Perhaps I never would have had such corns, at that, if my mother had known as much about shoes."

"That's it, Mother. Today, even baby steps out."

"A Child is to be Born"

Reprinted for expectant mothers from the series in "Hygeia"

Symptoms—Exercise Diet—Clothing 10c American Medical Assn. 535 N. Dearborn St., Chicago

H. Armstrong Roberts

The CHILD'S EARS

Most deafness in infants can be prevented; but it involves watchful knowledge on the parents' part. They should know at least the fundamental principles of the care of baby ears, as told by

WILLIAM I. FISHBEIN

THE ears are not only organs of hearing, but they also control body equilibrium. Within the internal ear there are three tiny canals filled with fluid. These are known as the semicircular canals, and the movement of the fluid in them helps maintain the sense of balance.

The proper care of the ears in the newborn infant consists only of cleansing the external ear lobes, which can easily be done with soap and warm water. No attempt should be made to remove wax from the external ear canal. One of the functions of the wax glands is to form material which mixes with the dead tissue cells from the deeper parts of the ear canal and carries them to the exit. Probably the movements of the jaw help in the flow of this material from the ear. Sometimes, this natural cleansing mechanism may be defective so that an excessive amount of wax accumulates. In such instances, the ear canal must be cleansed. This is usually done simply by putting a few drops of hydrogen peroxide into the ear canal, which loosens up the material so that it is easily

removed. This treatment, however, should be carried out by the physician because of the danger of injuring the eardrum.

Attempts to remove wax from the ear may injure not only the eardrum but also the skin lining the external canal, so that a furuncle [boil] develops.

Furunculosis of the external ear canal is common. It usually produces severe pain. The furuncle or boil in the canal may be seen if it is close to the opening. Usually, if heat is applied to the ear canal, the furuncle "comes to a head," breaks open, and the infection clears up. Since this condition is fraught with danger, a physician's attention is necessary.

An acute inflammation of the middle ear in infants is known as acute otitis media. It is a frequent disorder and may follow a contagious disease. Infants in hospitals, who constantly maintain a prone position, seem to suffer more from this infection than infants in the home.

One of the usual symptoms of ear infection is fever, but in some instances, the temperature may be normal. The baby may be restless, may fail to gain weight and refuse to nurse. Accompanying the ear infection, there may be vomiting and diarrhea.

It is important in all acute and chronic diseases of infants to have frequent inspections of the eardrums made. By examining the eardrum to determine whether it is red or bulging, the physician may also determine if infection of the middle ear is present. Sometimes the first sign of a bad ear condition is the presence of pus in the ear canal. If the eardrum is red and bulging, and if pus is present in the middle ear, the physician may deem it necessary to cut the eardrum to permit drainage.

As the child grows older, it is not unusual for him to put some object, such as a marble, button or a bean, into the external ear canal where it becomes stuck. Any efforts to dislodge it in unskilful hands may be disastrous. The physician can determine the exact location of the foreign body and remove it either by syringing or flushing the ear or, if necessary, by grasping the object with an instrument.

If an infection of the middle ear continues over a long period of time, it is called chronic otitis media or inflammation of the middle ear. The infection may persist

Early Toilet Training made Easier, Safer

"A first step in teaching your child proper bathroom habits is to choose a tissue that has softness for comfort and strength for security"

BEULAH FRANCE, R.N.

DO YOU KNOW there need be no *soiled* diapers after 8 weeks? That at the age of four your child can attend to his own needs? These and other questions are answered in the booklet offered below.

• • •

In early toilet training, your selection of the proper toilet tissue is very important.

For safe, easy use by a child, toilet tissue must be *soft* enough for entire comfort, yet *strong* enough to cleanse thoroughly.

You will find this ideal balance of softness for comfort and strength for security in Luxury Texture ScotTissue. Safeguard and encourage your child by making Luxury Texture ScotTissue—soft yet strong—a part of his early toilet training.

Copr., 1940, Scott Paper Co.

SOFTNESS for Comfort
STRENGTH for Security

FREE OFFER!—Every mother will want this helpful booklet, "Teaching Children Proper Bathroom Habits," by Beulah France, R.N. It tells when toilet training should begin, the best way to establish a regular routine.

FREE BOOKLET

Scott Paper Co., Chester, Pa.

Please send me free copy of "Teaching Children Proper Bathroom Habits" by Beulah France, R.N.

Name_____

Street_____

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H-4-40

● Wise mothers look for two things in children's shoes. They find them both in Poll-Parrots. Correct, roomy lasts designed to let young feet grow strong and shapely. Second, the smart, grown-up styles that youngsters demand nowadays. Poll-Parrots are real values... they have genuine leather in all vital parts for lasting wear. Your Poll-Parrot dealer takes special care in proper fitting. *Write for name of nearest dealer.*

Healthy Feet Today are Happy Feet Tomorrow

POLL-PARROT COMMENDED PARENTS MAGAZINE CONSUMER SERVICE

POLL-PARROT FOR BOYS SHOES FOR GIRLS
STAR BRAND SHOEMAKERS · ST. LOUIS, MO.
Branch International Shoe Co.

For wider Selection see the Poll-Parrot companion lines marked "A Star Brand Shoe"

because the ear is not draining properly or because of excessive granulation or scar tissue in the ear. Such a condition is best treated by the ear specialist. Removal of infected tonsils and adenoids may be important in the prevention of recurrent ear infection.

Infections of the middle ear may result from swimming. Organisms and infected bathing water snuffed up into the nose are liable to reach the middle part of the ears. Children who have had ear infections should avoid diving and, during swimming, should keep the head out of the water.

Cotton stoppers or special ear plugs may be used to help keep the water out of the ears if the child has a perforated eardrum and insists on going in swimming during the summer.

One of the most common handicaps to mental growth in children is deafness. The child who seems inattentive or dull may be hard of hearing. Heredity is often blamed for many hearing defects; but, in most cases, the deafness is the direct result of infection of the middle ear, an infection which may extend into the ear from the throat. The throat and middle ear are connected by a passageway called the eustachian tube. During coughing or sneezing, infected material may be forced from the throat into the middle ear, producing infection there. The eustachian tube is necessary to help maintain equal pressure on both sides of the eardrum. If this tube becomes blocked, the hearing power is reduced. Chronic infection of the middle ear is also a common cause for decreased hearing.

The hearing of a child may be tested by comparing his acuity with certain standards. The speaking voice usually is heard at about 30 feet and a whisper at about 20 feet. The hearing may also be tested by means of the tick of a watch, but this is not as reliable as speech. In schools, group testing of hearing may be made with a specially devised instrument known as the audiometer. Tests may also be carried out by the ear specialist using tuning forks. In this way, it can be determined whether the child is deaf for low or for high tones. The type of deafness present may give some indication as to its cause.

The child with a hearing defect needs a great deal of encouragement. His career should be planned accordingly. Some occupations are suitable, while others are definitely unsuitable for the hard of hearing. There are many local Leagues for the Hard of Hearing which will be glad to give aid and advice in guiding the child and planning his life. Wise, sympathetic and constructive guidance will help obviate concern for the future. It may be advisable to teach the deaf child lip reading as early as possible, particularly when the degree of deafness is extensive. This instruction in lip reading should be included as part of the school work.

Most deafness is preventable. It involves the prevention of contagious diseases and colds, the prompt recognition and treatment of infected tonsils and adenoids and proper care of the ears.

BOYS and GIRLS WEEK

The annual observance of Boys and Girls Week this year will be from April 27 to May 4, inclusive, and children will take part in specially planned activities throughout the nation during these days.

Saturday, April 27, is Recognition Day, and the parades and pageants that day will point out the part that boys and girls play in the life of the community; Sunday it will be observed in the churches; Monday is parents' visiting day to the schools to hear special addresses stressing the importance of education and see their exhibits; Tuesday, April 30, is Vocational Day; on Wednesday, May 1, Health and Safety Day, the importance of a sound body and safe living conditions should be stressed by means of health and safety campaigns, poster exhibitions and lectures. Citizenship Day comes next; then on Friday the day will be devoted to entertainment and athletics; on Saturday, May 4, there will be hikes, picnics, family gatherings to stress importance of the outdoors and to emphasize the mutual responsibilities of the parents and children.

STRENGTHENING the STAFF of LIFE (Continued from page 338)

want to eat bread that will make me fat." The fallacy of this reasoning is revealed by the fact that the experiment was conducted on young growing animals and most of the increase in weight is due to growth and not excess fat. It is not likely that a mature person would wish to multiply his weight several times, but every Mother knows that a child of 2 or 3 years must increase in size materially during the next fifteen or twenty years. In this test the life span covered the time in which greatest growth should normally occur in rats. Those fed the most favorable diet developed strong sturdy bones and healthy bodies.

In order to prove further the conclusions of this original research project, workers at the University of Illinois conducted an additional experiment by the paired feeding method, in which the amount of feed supplied was so controlled that gains in body weight were equal. This was continued for forty-nine days, and then the method of feeding was changed to provide an equal amount of food for each experimental animal. This test showed that the animals fed on bread containing 6 per cent and 12 per cent of nonfat milk solids were specifically longer than those fed on the nonmilk bread. When the experiment was shifted to a basis of providing equal quantities of food, the differences caused by the nonfat milk solids became even more striking.

The fear of gaining fat expressed by certain women was completely allayed by this experiment which showed that the addition of the nonfat milk solids to bread had no significant effect on the fat content of the animal, as determined by actual chemical analysis. In other words, while these milk solids increased body weight and length of growing animals, it did not encourage formation of fat.

On the basis of these two recent experiments, it is safe to conclude that bread containing 6 per cent nonfat milk solids is materially superior to bread containing no milk and that bread containing 12 per cent nonfat milk solids is still more valuable from the nutritive standpoint. Bread with a substantial content of nonfat milk solids encourages healthy bone and tooth development and does not encourage or aid formation of fat. In these tests bread was the sole source of food; consequently, the differences in the bread were effective directly in the growth of the experimental animal. In man's diet, bread, of course, is not the sole item of food; therefore, it is not likely that any such results could be obtained in human nutrition.

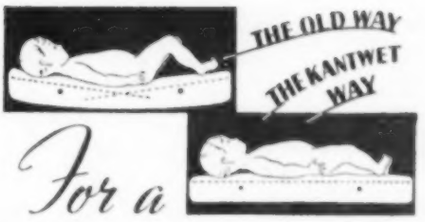
However, the significant fact is that there is definitely a difference in the nutritive value of bread, and the consumer who wants to obtain the superior product is able to do so merely by demanding it. If the housewife is going to buy bread, she may as well get one of superior value. All she has to do is insist on a loaf containing at least 6 per cent nonfat milk solids, and if she wishes an especially nutritious loaf, she can request bread with the content of 12 per cent nonfat milk solids. It is frequently sold under the name of "School Lunch Bread." This loaf may sell at a premium price, but the loaf containing 6 or 8 per cent nonfat milk solids is a standard item with many bakers and is usually sold at the normal price for white bread.

NEW MILK PLANT for HOSPITAL

Because a serious diphtheria epidemic in 1938 took several lives at the Colorado State Hospital at Pueblo, that institution has recently installed the most complete milk plant of any large hospital in the United States, according to H. H. Miller, milk specialist of the U. S. Public Health Service. Pasteurizing and homogenizing equipment is included according to Miller's specifications.

When the epidemic was traced to the milk supply, state officials felt that the finest equipment would be cheap, compared with the loss of lives and the anxiety of the relatives and friends of the 5,000 patients and persons who are employed at the hospital.

The hospital has a herd of 222 Holstein cows in production at all times, furnishing about 750 gallons of milk daily.



For a

STRAIGHT, STURDY BODY

Doctors recommend a firm crib mattress . . .

For lasting firmness a mattress *must* be tufted. Because of the exclusive Glaskin wet-proofing process which is non-rubberized (and moisture-sealed flat button tufts) Kantwets are guaranteed firm and completely wet-proof. No other crib mattress can make these claims.

THERE IS ONLY ONE KANTWET

Look for "KANTWET" on the label and for moisture-sealed tufting.

Check these

GUARANTEED FEATURES

✓ WET-PROOF
✓ WASHABLE
✓ DUST-PROOF
✓ SANITARY

Ask for KANTWET High Chair Pads, Play Yard Rugs, Carriage and Bassinet Pads, Duty Seats and Scale Pads. They are made better and are more attractively styled.

SEND for free copy of "For Baby's Health." Address Rose-Derry Co., 405 Chapel Street, Newton, Mass.

KANTWET *Crib Mattresses*

WET-PROOF · WASHABLE · DUST-PROOF
SANITARY YET NON-RUBBERIZED

WHAT THE DOCTOR ORDERED

All over America there are doctors who tell mothers to buy Wee Walkers, those CORRECT baby shoes which cost so little.

Don't let baby wear outgrown shoes. Baby feet grow so fast you *must* change to new shoes often.

Infants' Wear Dept. of the following low-profit stores. Birth to shoe size 8.

COMMENDED PARENTS MAGAZINE INSTITUTE

W. T. Grant Co. S. S. Kresge Co. J. J. Newberry Co.
H. L. Green Co., Inc. Sears, Roebuck and Co.
Metropolitan Chain Stores, Inc. Kinney Shoe Stores
Schulte-United Stores Isaac Silver & Bros.
F. & W. Grand Stores

Pair free to doctors. To determine size you want, request foot measuring scale on your prescription blank. Address Dept. H-9. Limited to U. S. A.

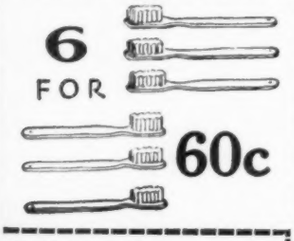
MORAN SHOE CO. • CARLYLE, ILL.

WEE WALKERS for the *wee* walker

DENTISTS USE THIS BRUSH BECAUSE IT'S DESIGNED FOR BEST RESULTS!

Correct, modern massage-brushing is possible *only* if the toothbrush is a properly designed instrument to facilitate the prescribed technique. TAKAMINE does more than meet dental requirements for quality and design. For, *only* Takamine encourages frequent renewal by its practical low cost that makes it possible for everyone to change to a new sanitary brush at least once every month.

TAKAMINE



6 FOR 60c

TAKAMINE CORP.
132 Front Street, New York City

If your drug or toilet goods counter cannot supply you with Takamines, send 60c to us for INTRODUCTORY package of 6 Standard Takamine Toothbrushes.

Name.....

Address.....

SEND COUPON

PARENTS' REPORT CARD

(Continued from page 335)

the feeling of security and safety to develop wholesomely. They need it at school; they need it at home.

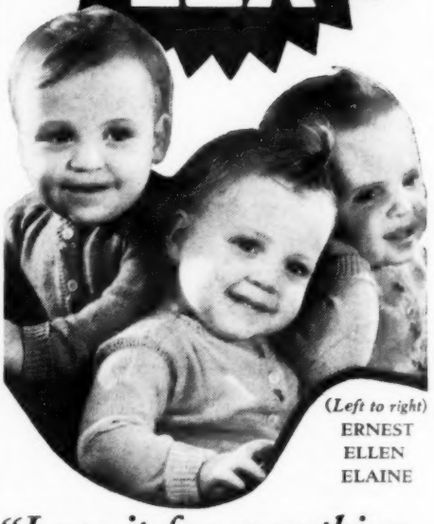
Again, school people cannot give the home a high mark unless parents are willing to take an interest in their children's work and to give them a reasonable amount of their time. This is a true story, though I suspect you will find it difficult to believe: A report card from our school was sent home by mistake without any marks on it at all. The report card was signed by the parent, returned by the pupil, and the mistake was not noticed until the home-room teacher was checking the cards. When I am lecturing on the general subject of home-school relationships, the question is frequently asked, "What do you mean by a 'reasonable' amount of time?"

In most homes, this applies to fathers more than mothers. Mothers, of necessity, are on call all the time! I could wish that fathers would try to find a few minutes, before or after dinner, to talk with their children, inquire about their school work, play games and make plans for a weekend activity. Fathers too often turn everything over to the mothers. But we who are in educational work know that there is a difference in boys and girls whose fathers are a real factor in their lives.

Last of all, the Home Health Report Card has an item marked "Discipline." If you as parents want a high mark, you'll have to do your share. It's comparatively simple for us, as teachers of your children, to know which homes have good discipline and which do not. In the public school system of our society, we have to take them all. As teachers, we do all we can for all children. But it seems to many of us that the outstanding phenomenon of the last generation is the fact that the home is turning over more and more responsibilities to us—responsibilities in which the home ought to share. If boys and girls are to have a fair chance in life, the home and school must cooperate in the matter of teaching discipline.

Working with youth is a thrilling, challenging affair. The home and school have a common goal. Working together, we can more nearly achieve our purpose in preparing youth to live happy and useful lives.

NEW QUICK LUX



(*Left to right*)
ERNEST
ELLEN
ELAINE

"I use it for everything my* TRIPLETS *wear!"

"My triplets have such tender skin," says Mrs. Alice Luihn, "they need very special care. New, quick Lux is *perfect* for all their dainty things. It's so *gentle*—as Lux has always been—and so *fast*. It's so very *thrifty*, too! It leaves things sweet and clean, soft as new."

WONDERFUL new, quick Lux is so speedy . . . gives you SUDS IN A SEC! In water *as cool as your hand*, it dissolves 3 TIMES AS FAST as any of 10 other leading soaps tested. GOES FURTHER, too—ounce for ounce, gives *more* suds, even in hard water, than any of these other soaps. Mild and gentle—it's safe for everything safe in water alone!

In the same familiar box—your dealer has it now . . at no extra cost to you

MEDICINE IN THE NEWS

"MEDICINE in the News," broadcast each week by the American Medical Association and the National Broadcasting Company over seventy stations of the Blue network, will continue on the air through April, bringing the latest information from the weekly *Journal* of the American Medical Association and from pages of thirty-two state and regional medical journals, which reflect the constant efforts of the medical profession to add to medical knowledge and to apply such knowledge to the advancement of the science and art of medicine and the betterment of the public health.

Numerous requests are received for copies of the "talks" given in this series of radio broadcasts. Attention is called again to the fact that these are not talks, but 30-minute dramatized programs with music. They are played by professional actors and musicians from the staff of the National Broadcasting Company. The scripts are not available for distribution because in themselves they would be of little use to most inquirers.

Listeners who are interested in further information about the topics touched on in "Medicine in the News" broadcasts are invited to write the American Medical Association. Personal reactions to the program are particularly desired. The features of the program which are most interesting or any to which the listener may take exception may be mentioned in the letters. All comments bearing signature and address will receive replies.

A number of letters have been received asking for the addresses of physicians mentioned on the program in order that the writers might be able to consult them with respect to the problems dealt with in the broadcast. Listeners are reminded that except for one doctor, who represents the American Medical Association, all other doctors mentioned on the program are fictitious characters introduced for dramatic purposes. Since these individuals do not exist, they cannot be consulted. In any case, Medicine in the News is not broadcast for the purpose of giving publicity to any one. Its purpose is to acquaint listeners with general trends and tendencies in medical progress and to encourage them to consult their own physicians, to whom all this information is available in the medical journals.

Some of our listeners have exhibited a tendency to compare their experiences with the experiences of the imaginary characters through whom medical cases are portrayed on the air. This is an undesirable procedure. No person can make his own diagnosis by comparing his symptoms with those portrayed in a dramatized case report. These dramatic representations, it should be kept clearly in mind, are for the purpose of attracting interest to the program and not to serve as a basis for self diagnosis or attempts to self medication.

Since Medicine in the News is a news program, developed as closely as possible to the actual time of broadcasting, we cannot announce topics in advance. The character of a program is determined by the material published weekly, fresh from clinical and research centers in *The Journal* of the American Medical Association.

We invite listeners to tune in on their nearest station of the Blue network of the National Broadcasting Company (see list) each Thursday at 4:30 p. m. Eastern standard time (one hour earlier Central time, etc.) to hear Medicine in the News.

TUNE IN HERE

New England States

WNBC	New Britain, Conn.
WLBZ	Bangor, Me.
WEAN	Providence, R. I.

Middle Atlantic States

WABY	Albany, N. Y.
WBEN	Buffalo
WJTN	Jamestown, N. Y.
WJZ	New York City
WMFF	Plattsburg, N. Y.
WSAN	Allentown, Pa.
WLEU	Erie, Pa.
WKBO	Harrisburg, Pa.
WGAL	Lancaster, Pa.
WFIL	Philadelphia
KDKA	Pittsburgh
WORK	York, Pa.

East North Central States

WENR	Chicago
WGL	Fort Wayne, Ind.
WBOW	Terre Haute, Ind.
WBCM	Bay City, Mich.
WXYZ	Detroit
WFDF	Flint, Mich.
WIBM	Jackson, Mich.
WJIM	Lansing, Mich.
WSAI	Cincinnati
WING	Dayton, Ohio
WIBA	Madison, Wis.

West North Central States

KSO	Des Moines, Iowa
KMA	Shenandoah, Iowa
KSCJ	Sioux City, Iowa
WREN	Lawrence, Kan.
KANS	Wichita, Kan.
KYSM	Mankato, Minn.
WTCN	Minneapolis
KROC	Rochester, Minn.
KFAM	St. Cloud, Minn.
KWK	St. Louis
KSOO	Sioux Falls, S. D.

South Atlantic States

WCOA	Pensacola, Fla.
WAGA	Atlanta, Ga.
WSOC	Charlotte, N. C.
WTAR	Norfolk, Va.
WRTD	Richmond, Va.
WCKV	Charleston, W. Va.
WBLK	Clarksburg, W. Va.

East South Central States

WAVE	Louisville, Ky.
WAPO	Chattanooga, Tenn.
WROL	Knoxville, Tenn.

West South Central States

WJBO	Baton Rouge, La.
KTOK	Oklahoma City
KFDM	Beaumont, Texas
KTSM	El Paso, Texas
KGKO	Fort Worth, Texas
KXYZ	Houston, Texas
KRGV	Weslaco, Texas

Mountain States

KTAR	Phoenix, Ariz.
KVOA	Tucson, Ariz.
KVOD	Denver
KGHF	Pueblo, Colo.
KOB	Albuquerque, N. M.
KLO	Ogden, Utah
KUTA	Salt Lake City

Pacific States

KECA	Los Angeles
KFSD	San Diego, Calif.
KGO	San Francisco
KTMS	Santa Barbara, Calif.
KEX	Portland, Ore.
KJR	Seattle
KGA	Spokane

Canada

CFCF	Montreal

An Appetite for Life

By J. MACE ANDRESS

AN appetite is an index to health. The patient who frequents the doctor's office is most likely to enumerate among his various symptoms a lack of interest in food. The appetite which is satisfied with plain wholesome food and plenty of it invariably suggests good health. Often it indicates that the person is also living right, that he is getting enough exercise, sleep, rest and fresh air. The body is doing its work so well that there is a demand for plenty of fuel.

But the word appetite often enjoys a wider application. It not only refers to a craving for food but also to a hunger for experience. There are many persons around us who are physically alive. They can see, hear, move from place to place and perform those habitual functions of life necessary for mere survival; but mentally they are dead. To them life is a dreadful bore. There is little to live for, no keenness of interest, curiosity, enthusiasm or inspiration. Abraham Myerson in his book, "When Life Loses Its Zest" discusses this condition, which is known as anhedonia. "To be really alive," he says, "is to have desire, enthusiasm and ideals; is to enjoy the things of the flesh and the things of the spirit in a hearty wholesome fashion, is to seek eagerly and drink deeply. To be otherwise is to be dead, even though one walks among living men like one of them."

Theodore Roosevelt is a good example of a man who loved life. His enjoyment of life had a keen edge. The hours did not hold for him a dull moment. He enjoyed his food, his sleep, his work and his play. Whether it was as a cowboy on the Western plains, a student in college, an author, hunter or biologist, a youthful politician fighting a corrupt political machine or a President of the United States, the events of the day were entered into with ardent zeal. Out of such a

A teacher may promote a zest for living by her own enthusiasm. Obviously, most little children have a voracious appetite for life. They are curious and heartily enjoy their food, pictures, books and play. Perhaps one of the teacher's greatest problems in promoting all round health is to preserve and guide this childlike hospitality for life.

rich life he could well say, "It is good to live, to be able of limb and strong of heart; to have great battles to fight and a chance to win. It is good to test our strength: To know the things worth while: To joy in the splendor of victory." Roosevelt fairly ate up life. From his Elkhorn Ranch he wrote to his sister, "Have been in the saddle all day, and have worked like a beaver, and am as rugged and happy as possible. . . . I wish I could see all of you, but I certainly do enjoy life."

This keen zest for living is contagious. Fortunate indeed are the boys and girls who have teachers who are really alive. Conspicuous among such teachers is William Lyon Phelps. His "Autobiography with Letters" deserves to be read by every teacher. In him we again find a personality rich in its human contacts and appreciations. No matter where fate or purpose led him, there he found genuine satisfaction. It might be drinking pink lemonade in a circus tent, floating in a boat down the Rhine, chatting with friends in his garden, declaiming an issue on the lecture platform or presenting a stirring talk on Browning in his classroom. To him teaching was a passion. He gives us one of the finest examples of the mental health of the teacher at its best. His attitude is expressed in these words:

"I love to teach as a painter loves to paint, as a musician loves to play, as a singer loves to sing, as a strong man rejoices to run a race. Teaching is an art—an art so great and so difficult to master that a man or woman can spend a long life at it without realizing much more than his limitations and mistakes, and his distance from the ideal."

Such a teacher promotes a zest for living by his own enthusiasm. It is obvious that most little children have a voracious appetite for life. They are curious and enjoy their food, pictures, books and play. The coming hours beckon to them. Perhaps one of the teacher's greatest problems in promoting all round health is to preserve this childlike hospitality for life and guide it toward worthy goals. Certainly mere existence does not imply a healthy mind and body. If the appetite for living is lost, life itself is without significance.

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Health Education in South America

By SALLY LUCAS JEAN

One of the most militant pioneers in health education is Sally Lucas Jean, who was foremost among those who started the modern health movement in America after the World War. Since that time she has carried the message of good health around the world. In the following article she tells about her latest adventures as executive secretary of the Health Section of the World Federation of Education Associations in an international conference in South America.

LAST summer, as one of the 800 visiting educators, it was my privilege to spend about eight weeks in touring four countries of South America and eight islands in the Caribbean Sea.

The affair, arranged by the World Federation of Education Associations as a "Good Will Tour," was unique in that the entire group had one central interest—the progress of education.

During the last three weeks of the cruise, the Eighth Biennial Conference of the World Federation of Education Associations was held on the steamer and in Puerto Rico. The Health Section of the Federation, of which C. E. Turner of the Massachusetts Institute of Technology is chairman, conducted three meetings, where papers were presented by ten speakers from four countries.

World conditions, which had developed since the conference was planned, prevented the attendance of the other fifteen authorities from eleven countries, who had prepared papers for the Health Section conference.

Great advances in public health have occurred in this part of the world within the last few years, and in sections of some countries they are effectively conducting a modern public health program. For instance, in the city of Buenos Aires, Argentina, through their country's president, who is deeply concerned with the sociologic phases of life, nursery schools and the health of school children are being promoted vigorously. Magnificent equipment has been purchased and modern technics introduced to train nursery school teachers.

In one of these centers 500 children spend five days a week in an ideal atmosphere for little children. They arrive in buses at 8 a. m., have baths, three meals, rest periods on cots under trees in a garden and go home in buses at 5 p. m. Medical and dental service is provided, and the children are trained in health habits. They arrive and leave to the strains of good music and laughter.

Another center, outside the city of Buenos Aires on an extensive estate, cares for 4,000 school boys and girls each day of their summer vacation. Here the children spend the entire day under an established regimen of health and recreation. During the school year this center is utilized only on Friday, the school holiday, and Sunday. The latest design in institutional equipment has been installed, as well as thoroughly modern and extensive clinical facilities.

Because physical exercise for girls is not yet popular, there has been difficulty in establishing training centers for women teachers of physical education; but Argentina has one such, and they have now reached the stage where girls may wear skirts to their knees on the play field.

Señor Cesar Vasquez, educational director in charge of health and physical education in Argentina, has arranged for each province to select one youth for training in physical education. These boys are sent into Buenos Aires, where a well developed course has been established.

In Uruguay, open air school education is being emphasized as a part of the attack on tuberculosis.

A well organized school health program is conducted in Montevideo, with physicians, nurses and dentists cooperating. Evidence of health instruction in the schools observed here and indeed in all the countries visited, indicated that they are inclined to place the responsibility for health teaching on the doctor and nurse. There is, however, an awakening interest in preparing teachers to take their part.

In Rio de Janeiro, Brazil, open air schools are established in their parks amid beautiful surroundings.

Lunches in school seem to be universal, and medical, nursing and dental services are furnished. Whether this condition exists in rural Brazil, we were not able to ascertain, but in São Paulo — the Chicago of Brazil—there is, I understand, an excellent school health

program under the guidance of the School of Hygiene of Brazil.

In Trinidad, school health activity is directed chiefly toward the prevention of malaria. Hygiene classes for teachers in training are included in the duties of medical officers of health, sanitary inspectors and nurses.

Venezuela, with a great disparity of conditions among its people, has a new teacher training college in the capitol, Caracas, which compares favorably with the best in any part of the world. This institution is extremely modern, as indeed are all the newer structures now being built in that ancient city; it has up-to-date plumbing, gymnasium and lunchrooms. The faculty, assembled from many countries, is being compensated at a rate which seems startlingly high to educators of the United States, but the rate of exchange is high.

Under the direction of Dr. E. Garrido Morales, commissioner of health for Puerto Rico, an extensive and intensive public health program is being conducted. Excellent hospitals are being constructed to replace antiquated buildings, and personnel is being prepared in the United States to assist in staffing these institutions.

Centrally located health centers have been established, with a system of follow-up by trained social workers and nurses.

A large corps of doctors and nurses carry on a school health program to combat hookworm, malaria, dental decay and tuberculosis. A disease [ankylostomiasis] caused by the hookworm is prevalent throughout Puerto Rico but constitutes a major problem in the rural sections, necessitating the devotion of much time to its prevention and treatment on the part of doctors and nurses.

The authorities are attempting to put health education on a basis with other subjects in the curriculum.

The people of Central and South America and of the islands in the Caribbean display an eagerness to have their particular part of the map respected as nations moving forward in line with the most advanced thought in government, science, arts and industries. Along with this ambition they have attained in the art of living a leisurely quality and an appreciation of the arts, which we would do well to emulate.

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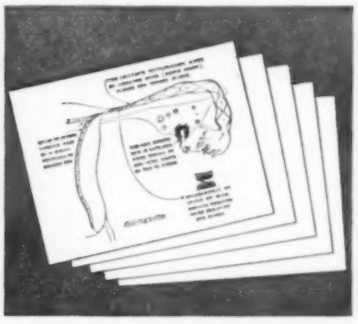

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A Study in Cereals

By EFFIE F. KNOWLTON

Again Miss Knowlton visits the schools of Binghamton, N. Y., and reports on some of the best health teaching she finds. This time it is on a unit dealing with farm life.

MANY teachers have found a unit of work on a farm to be especially rich in opportunities for health teaching. One of these is Mrs. Frances Shadduck, who teaches a third-grade group in the Benjamin Franklin School, Binghamton, N. Y.

This teacher says that every day's work during the progress of this unit brings her children new health-learning situations. Furthermore, this unit leads naturally into many experiences through which specific health facts should be learned. I have spent two periods with Mrs. Shadduck and her group while the children were studying cereals and their use in the diet.

It is the second month of the school year, and the farm unit of work is under way. As an early morning period begins, the children are reading from the board a quotation neatly printed with yellow crayon:

"I'll help you and you'll help me
Then what a happy world 'twill be."

In discussing cereals, the children described their own breakfasts.

During informal conversation concerning helpfulness, Glenn says, "I help my mother and my father, I help myself and my teachers and almost everybody." Mrs. Shadduck seizes the opportunity for emphasizing to the 8 year olds the importance of being able to help oneself as well as others.

The farmer, about whom the children have been studying, is mentioned as one who helps us in many ways, bringing us fruits, vegetables, milk, eggs, grains and many other things we need. The children seem to appreciate the farmer's helpfulness when he raises the grains which provide us with bread and our other cereal foods.

The children now hear the myth of Psyche's seemingly hopeless task of separating, one by one, the grains of wheat, barley, oats and rye from the huge pile in which all were mixed and of the timely aid given her by friendly, industrious ants.

At the board, the teacher writes as the children recall all the kinds of grain mentioned in the story. When asked to name any other grains about which they know, the children add corn and rice.

Mrs. Shadduck explains that grains are the seeds of plants and asks the children how they use them as food. The discussion which follows is on the children's own level of understanding and expression and draws on their own experiences in their homes. They tell about eating dark wheat breads more often than white, about having hot cooked oatmeal for breakfast, about using boiled rice, rye bread and corn bread and about finding rice or barley grains in soups. William says he sometimes has "rice with milk and eggs all mixed together." Mrs. Shadduck tells him that this mixture is rice pudding, and the children name again its different food materials, all of which are good for boys and girls.

Stanley volunteers that he likes pancakes for breakfast. Mrs. Shadduck does not register the shocked and forbidding disapproval I have

sometimes noted in teachers under similar circumstances, but she tells Stanley that pancakes are not as good for children as some other foods, so it is well to have them "only once in a while."

Anna reviews the grains that have been discussed. The children and teacher decide to collect different kinds of grain kernels in small glass jars and to bring the empty containers of their favorite breakfast foods to add to their farm exhibit. Also, they will find pictures of cereal foods for their farm booklets.

Seven school days have passed. This morning I find an interesting

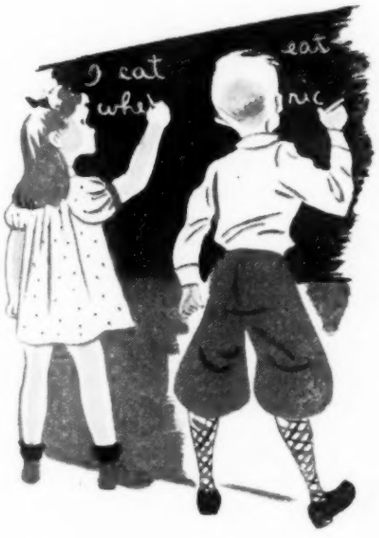

exhibit of grains and cereal boxes. Mrs. Shadduck and the children are talking about the cereals they ate for breakfast. Some had hot cooked cereal, while others had "ready-to-serve" breakfast foods. Jay explains what is meant by "ready-to-serve," saying, "We don't have to cook them; they are ready to put on the table." Some have heated their ready-to-serve cereals by pouring warm milk over them.

On the blackboard is a simple drawing of a longitudinal cross-section of a wheat kernel. Mrs. Shadduck shows the children that the seed contains a baby plant, food for the baby plant and several outer coats, called bran coats. She tells them that dark cereals have saved all these good parts: bran coats or portions of them, the baby plant and food for the baby plant; but light cereals, she explains, have lost their coats and may even have lost the baby plant, too.

The children learn to know and name many cereals. A well arranged summary is written on the blackboard; it classifies cereals the children know as:

DARK		LIGHT	
Hot	Ready-to-Serve	Hot	Ready-to-Serve

When asked why they should eat cereals, they give these reasons:

"They help make us strong."
"They help us grow."
"They help us gain weight."
"They are good for the body."
"They help us do good work."
"They help us play."
"They taste good."

The point of good selection of cereals is made. "How can you help your mother buy cereals, help her more than by just doing the errands?" inquires Mrs. Shadduck. Barbara says she can pick out dark cereals, and several children declare they can read what the boxes tell them.

Children talk with their teacher about helping mother prepare breakfast, especially about helping prepare hot cereal for cold mornings.

The teacher wonders if any child has learned to like a cereal which he had thought he could not like. Charles says he learned to like oatmeal: "I kept on eating just a little at a time, then I ate more and more until finally I liked it."

On sheets of paper, the children now make neat lists of cereals they eat. Turning their papers, they write the names of cereals they have not eaten but which they would like to try. Requesting them to add to the first list the name of each new cereal eaten, Mrs. Shadduck says, "You may put these papers into your farm booklets. Make the list of cereals you eat grow long, and watch how the cereals you eat help you to grow big!"

It is evident that during these first weeks of the semester, Mrs. Shadduck has studied the children of her class as individuals. She seems to know much about each child and his home environment and to be making effective use of her knowledge in the child's guidance.

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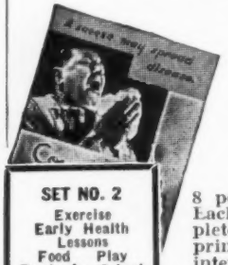

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The Teacher Practices MENTAL HEALTH

By CHARLES R. FOSTER

Teachers who have learned how to keep themselves emotionally fit and practice wise self management teach mental health both consciously and unconsciously. Professor Foster of Rutgers University offers us a few pictures of teachers at work. He tells why every teacher should study mental health.

AS A title for a lecture on mental hygiene, one university professor has always liked this one: "Teachers Are Also People."

The implication is obvious. The men and women who work in classrooms, day after day, are just human beings after all. When we talk about mental hygiene, we are talking about them no less than we are talking about the children they teach.

In the suburban community of Summit, N. J., teachers are evaluated on such qualities as sincerity, emotional maturity and poise, sense of humor, appearance, on their ability and willingness to share ideas and to "give praise where praise is due."

These traits are important in mental hygiene, because it is so necessary to provide an atmosphere of friendliness in the schoolroom. Especially during the years when children are growing up, they must have encouragement and the feeling that others who are older and more experienced are interested in what they do. The teacher who is "too busy" doesn't belong in this picture.

Not long ago I happened to be talking with a teacher after school hours. A youngster had lingered after the others had gone. She asked politely, "May I take my geography book home?"

"No!" snapped the teacher. "I said you could only take home your arithmetic."

The teacher probably didn't mean to make it sound so gruff, but it was a sharp rebuff to the pupil just at the point where she was getting really interested in a school subject. If the teacher had a good reason for not wishing the youngster to take the book home, she might have replied to the child's request in such a way as to save the little girl's budding enthusiasm.

Talking about children in front of them, that is, in a disparaging way, is another bad habit of teachers who don't have the mental hygiene point of view. When we put ourselves in the child's place, we can feel this differently. How would a grown-up, Mr. Smith, for instance, like to face a scene like this:

Mr. Jones (introducing Mr. Smith): "Mr. Williams, I'd like you to meet my friend, Mr. Smith."

Williams: "I'm happy to meet you, Mr. Smith."

Smith: "It's a pleasure to meet you, sir."

Jones: "You know, Mr. Williams, Smith has the worst habit of daydreaming. He's always looking out the window with a far away look in his eyes, just when I'm trying to explain something to him. He doesn't seem to remember anything. And, besides, he's always chewing his finger nails!"

Educators are beginning to realize that the impression a teacher makes on her pupils is just as important as anything the teacher has to say about the subject in hand. It is especially true on the lower levels of the public school system, where the teacher's position, in the eyes of the child, is almost godlike.

Even grown men and women, when asked about the teachers they had in college, are apt to remember relatively trivial incidents of

the classroom, little affairs which won their confidence or lighted their enthusiasm. If this is true on the adult level, how important it is to realize that the slightest unguarded remark may color a child's attitudes for years to come toward his school, a particular subject or his fellow men and women.

A teacher who is upset by conditions at home or who is worrying because her ambition to be promoted is being frustrated or who is looking at the world with distorted vision because she is chronically ill—none of these teachers can give the classroom that sense of buoyancy and optimism which indirectly enables children to grow normally and to maintain a healthy outlook on life.

Not enough is known about the exact influence of teachers' emotional health on the emotional health of their pupils. Where tests of emotional stability have been given to children and to their teachers, the evidence has shown that the more stable teachers have also had more stable pupils in their classrooms. However, more work needs to be done in this field of research.

But everything we know about human beings and the way they react to each other suggests that it is highly desirable, especially when dealing with impressionable youth, that their leaders be sound in their own behavior and calm in their own reactions to the routine affairs of classroom life.

Administrators—principals, superintendents and supervisors—have much responsibility in this connection. Even assuming that they have chosen their teachers wisely, with an eye to their personality traits and general emotional dispositions, they must be alert to keep the atmosphere of the school system as a whole on a healthy level.

The cheerful "Good morning" of the principal as he walks up the school steps may resound all through the building and give the school day a promising beginning. A gruff reply to a teacher's request may send her back to the classroom with a "chip on the shoulder" attitude. Just as the children look to the teacher, the teacher looks to her superior officers for a compliment, a word of encouragement, a bit of inspiration. Mental hygiene can't be confined to the four walls of the most inspired and most happily motivated teacher's room.

It should also be borne in mind that every teacher needs to "keep fit" emotionally. We would be making a mistake to assume that any human being, in any profession, can always and evenly, throughout his career, maintain a perfectly level emotional keel. Prof. Donald Laird and others have shown that we all have our "ups and downs" emotionally. While we may not be able to avoid the slumps, or periods of depression, we can train ourselves to be wary of allowing them to affect other persons.

Of course, colleges which train teachers must share in the responsibility for selecting young men and women who are "good emotional bets." In a number of instances which have come to my attention, individuals have completed years of arduous training to be teachers, but they have personality qualifications so deficient as to make their supervisors blush with shame at the thought of seeing them appointed to teaching posts. The technical problem of how to do this selecting presents real difficulties, but the training institutions must face it.

One of the best reasons for suggesting to teachers that they themselves study mental hygiene, if they have not already done so, is the fact that such study will make them more understanding of themselves. About one fourth of the teachers in New Jersey, it has been shown, have pursued courses in mental hygiene or its equivalent. It is a shrewd guess that among these teachers there will be more comprehension of the frailities and weaknesses of human nature than will be true of the other three fourths.

Time and again, teachers have commented that improvement of their insight into their own problems was a more important outcome from the study of psychology and mental hygiene than any information these studies gave them about technic in teaching.

To Contributors:—*The editor of the School and Health Department will be pleased to receive articles dealing with the actual solution of concrete and practical health education problems in the school. Contributions on general theory are not solicited. Articles must not exceed 1,900 words in length and must be typewritten double spaced. Stamps should accompany manuscripts to insure their return if rejected. All articles accepted will be paid for at regular rates. Address J. Mace Andress, editor of School and Health Department of* HYGEIA, *67 Clyde St., Newtonville, Mass.*

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Medical News

OF THE MONTH

Dust

The inhalation of most types of dust, aside from silica and asbestos, causes little irritation and no significant harmful effects, Leroy U. Gardner, Saranac Lake, N. Y., points out in *The Journal* of the American Medical Association in a discussion of the lung reactions to inhaled dust, particularly among industrial workers.

While silica and asbestos dusts actually cause harmful structural changes by hardening the lung tissue, other mineral dusts, such as coal or iron, by themselves cause no significant hardening but merely pigmentation, which has no influence on the function of the lungs. When they are mixed with free silica there may be a degree of hardening, but it is due to the contaminating silica.

Transfusion of Cold Blood

Transfusion of stored blood without preheating is a safe, convenient and economical procedure which often avoids dangerous delays, Elmer L. DeGowin, Robert C. Hardin and L. W. Swanson, Iowa City, declare in *The Journal* of the American Medical Association.

From a detailed study of ten patients who were given tranfusions of blood mixtures varying in temperature from 77 to 59 F. they concluded that no significant lowering in the body temperature, no consistent changes in blood pressure and no untoward symptoms could be attributed to the procedure. They then administered preserved blood without preheating to 568 patients and again observed no reactions in the patient attributable to this method.

Referring to the common practice of preheating blood to body temperature before transfusing it, the authors say that "considerable labor is expended by the intern and nursing staff, and frequently costly apparatus is used. There is a danger of disintegration of the blood from the injudicious application of heat."

Primary Cancer of the Lung

Because approximately 10 per cent of all cancer deaths are due to primary cancer of the lung, a condition for which surgery now offers a good chance of survival if performed early, all suspected cases should be examined with a bronchoscope [an instrument for viewing the interior of the windpipe], Richard H. Overholt and William Ray Rumel, Boston, declare in *The Journal* of the American Medical Association. Such an examination should be made of all patients with a dry or productive cough, either by itself or in association with fever, chest pain or discomfort, bleeding and wheezing.

Pinworms

Because of its relative cheapness, its ease of administration and its relatively high degree of efficacy, gentian violet is the most valuable remedy for pinworm infestations in families, Willard H. Wright and Frederick J. Brady, Washington, D. C., declare in *The Journal* of the American Medical Association.

They point out that it is useless to treat individuals in a household in which others infested with pinworms are left untreated. "In view of the practical impossibility of applying hygienic measures in a manner sufficiently rigorous to control pinworm infestations," they explain, "the use of chemical treatment would appear to be necessary in most cases for the successful attack on this parasite."

Stomach Contents Tell Diagnosis of Tuberculosis

Examination of the washed out contents of the stomach seems to come nearer than any other method to finding all active tuberculosis germs and should therefore be adopted as the ultimate standard for definitely ascertaining presence or absence of the disease or apparent cure, Asya Stadnichenko, Seymour J. Cohen, and Henry C. Sweany, Chicago, declared in *The Journal* of the American Medical Association.

Stomach washings that are positive for tuberculosis, the authors explain, "indicate an internal origin of tubercle bacilli (tuberculosis germs) in the region of the stomach or above it. Negative results give proof that there is no open focus discharging tubercle bacilli and that the particular patient either is not tuberculous or has a lesion which is closed. All this information is of tremendous importance in the diagnosis of tuberculosis and in the control of treatment."

Improper Pasteurization of Milk

"Improper pasteurization of milk is worse than no pasteurization at all, because it inspires a feeling of artificial security," R. A. Strong, New Orleans, warns in *New Orleans Medical and Surgical Journal.*

Pasteurization may be used as a means of "covering up" dirty milk, he says. All milk should be produced in accordance with definite high standards and effectively pasteurized by modern equipment. The pasteurization should be tested frequently by the use of the so-called phosphatase test. Until these recommendations have been carried out, he states, the elimination of milk-borne diseases is not to be expected.

Dangers of Indian Gum

A warning of the dangers to those who are highly sensitive to karaya, or Indian gum, used in hair wave-setting solutions, in certain foods and in supposedly harmless laxatives, is given in *The Journal* of the American Medical Association by Karl D. Figley, Toledo, who points out that this substance may produce hay fever, asthma, skin eruptions or stomach upsets. He reports sixteen cases of sensitivity to the gum and states that other instances have been previously reported.

Some of the foods in which karaya gum may be found are gum drops, soft center candies, prepared ice cream powders, certain brands of gelatin and junket, certain foods for diabetic patients, fillers for lemon and custard pies and some salad dressings. Many hand lotions and certain tooth cleansing agents also contain the substance.